Social Exclusion and the Health of
Mothers and Young Adults:
A Longitudinal Study of Lone-parent
and Two-parent Families

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NOVA SCOTIA
Community Services

The Family Mosaic

Social Exclusion and the Health of
Mothers and Young Adults:
A Longitudinal Study of Lone-parent
and Two-parent Families

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Introduction

Over the last generation, fertility rates have dropped below replacement level, the percentage of children born into single-parent families has increased substantially, divorce rates have multiplied ten-fold, and women's labour force participation rates have quadrupled (Dechman, 1995). The magnitude and speed of these changes have left us without a clear picture of what today's families really look like. Family life is both varied and dynamic. There are one- and two-parent families; single- and dual-earner families; blended, nuclear, and extended families. Families can be two-parent today and one-parent tomorrow; single-earner today and dual-earner tomorrow.

The Family Mosaic Project (FMP) provides policymakers, practitioners, and the public with information about the ever-changing realities of life in both one- and two-parent families as children grow from infancy to adulthood. The project started over twenty years ago with a sample of 716[1] mothers who gave birth to their first child in a Nova Scotia hospital in 1978. The sample was stratified on the basis of marital status. Half of the mothers were married when their first child was born and half were single when their first child was born. By drawing two comparable samples of married and single mothers, it is possible to give statistically-reliable estimates of outcomes for both family types. Weighting the data to compensate for the over-representation of single mothers also makes it possible to provide information on families in general.

Data collections for this project were conducted when the children were approximately 6 weeks, 9 months, 18 months, 10 years, and 20 years of age. The 6-week, 9-month, and 18-month data collections consisted of personal interviews with the mothers. The 10-year data collection consisted of personal interviews with mothers and psychological assessments of a random sample of 223 of the children. The 20-year data collection consisted of telephone interviews with both the mothers and their sons or daughters, who were, by then, young adults. Seventy percent (N=500) of the mothers who started the project in 1978 were still involved in the 1999 data collection. Eighty-six percent (N=428) of the sons/daughters of these mothers also participated in the 1999 data collection. More detailed information on the study design and associated questionnaires can be found in the Methodology Report (Dechman, 2001a).

This report for the Family Mosaic Project provides information on the health of mothers and young adults, based on an analysis of several of the health-related questions from the 10- and 20-year data collections, and information from those who agreed to share some of their provincially-collected health service utilization data for the years from 1989-99.

We examine a variety of self-reported indicators of health, including smoking behaviour, alcohol use, presence of acute and chronic illness and a rating of overall health, along with several measures of health-service utilization, including number of visits to/amounts paid to GP's and specialists and number of in-patient/out-patient hospital admissions.

This report on the health of mothers and young adults is part of a series of reports from the FMP, including:

- The Dynamics of Family Life
- Educational Profiles of Mothers
- Employment Profiles of Mothers
- Social Exclusion and Social Assistance
- Psychological Outcomes and Coping Strategies
- Leaving School or Continuing: What Makes the Difference
- The Experiences of Young Adults Leaving School Early
- Youth Employment: Entering the Labour Market

Policy and Research Context

The most important step taken in recent years in analysis of health and government policy has been the consideration of the determinants of health – a variety of social factors and conditions that are both directly and indirectly related to population and individual health (including accumulation and distribution of wealth, housing, education, and a variety of other socio-economic factors). No longer is focus placed solely upon health system utilization or the personal health behaviors of individuals.

"Population health" is described as an "approach that addresses the entire range of factors that determine health and, by so doing, affects the health of the entire population" (Townson, 1999: iii). The importance of this new focus is that it brings poverty and its concomitant symptoms and causes into the equation of health. The challenge that arises through use of this perspective is that no longer is health the sole responsibility of individuals. The responsibility for population health is spread out further across the shoulders of government departments and policy makers outside the specific health sectors.

Comparative statistical data, and theoretical context, in this report have been drawn from the 1999 publication, "Toward a Healthy Future: Second Report on the Health of Canadians", prepared by the Federal, Provincial and Territorial Advisory Committee on Population Health (ACPH) and from several statistical profiles of women in Nova Scotia prepared by the Nova Scotia Advisory Council on the Status of Women (McFadyen 2000, 2001). Townson (1999), Raphael (2001) and Donner (2002) inform the discussion of health-related policy.

In the introductory section of the ACPH publication, a fictional story is presented to illustrate the relationship of the health of an individual (in this case, a fictional child named Jason) to a variety of social factors and conditions in the wider population:

"'Why is Jason in the hospital?
Because he has a bad infection in his leg.

But why does he have an infection?
Because he has a cut on his leg and it got infected.

But why does he have a cut on his leg?
Because he was playing in the junk yard next to his apartment building and there was some sharp, jagged steel there that he fell on.

But why was he playing in a junk yard?
Because his neighbourhood is kind of run down. A lot of kids play there and there is no one to supervise them.

But why does he live in that neighbourhood?
Because his parents can't afford a nicer place to live.

But why can't his parents afford a nicer place to live?
Because his Dad is unemployed and his Mom is sick.

But why is his Dad unemployed:
Because he doesn't have much education and he can't find a job.

But why ....?'" (p. vii)

This and other reports of the Family Mosaic Project (FMP) provide more of the background on this fictional child, Jason, and his Mom. Let's suppose that instead of two parents, Jason lives with only his Mom (as was the case, at least part of the time, in many of the families in the FMP). Let's say that Jason was born to his Mom when she was at a young age and single (as was the case with many of the mothers in this study). Jason's Mom, over the 20 years of this study, was able to secure only a low level of education and has often been unemployed or underemployed, and frequently living below the poverty line or on social assistance. During that time she has suffered from chronic physical illness and mental depression. She has had limited support from Jason's Dad and her own family and friends. She also has more than one child.

Through the FMP data, we also follow Jason as he matures into a young adult, and we see that some of the key determinants of his own health are linked very closely with those of his mother, and that many have been in place since very early in his life, and even before he was born.

While this fictional example is not meant as a deterministic view of the health or other experiences of mothers and their children, placed within the context of FMP findings, it serves to remind us of several things:

- that the health of young adults must be examined within the context of their family;

- that the socio-economic determinants of health are necessarily broadly-defined; and

- that their effects compound over time.

When we include all of the above factors, it becomes clear that the analysis of the health of Jason and his Mom, of the women and young adults in the FMP, is very complex. There is no single indicator that suffices to determine whether an individual or a population is "healthy" or "ill". In fact, there is a wide continuum between these two concepts, involving many factors that heretofore may have been thought irrelevant to, or best omitted from, the examination of health. As we will see, the way in which a society measures the health and well-being of its population can serve to obscure the reality of the day-to-day lives of many, and to encourage the development of misguided social policy.

The FMP expands our understanding of the health of mothers and their families by tracking significant indicators and determinants of their health from the birth of the mother's first child through to the time when that child had reached twenty years of age. Such longitudinal data provide a more comprehensive view of mothers' experiences of their own health and that of their child, and to some extent, the families' usage of the health care system.

SOCIO-ECONOMIC INDICATORS OF HEALTH

The 1999 ACPH report highlights a variety of "influences on health", including: gender, age, income and income distribution, social and physical environments, education and literacy, as well as personal health practices/biology and genetics and access to and utilization of health services. It is important to note that it may often seem difficult to establish a cause/effect relationship among these variables (that is, poor health could be influenced by low education, but it could also be one of the reasons an individual cannot continue or upgrade her education). However, the inter-relationship of variables is clearly established, so that we become aware that a shift in a specific variable is linked to a shift in another. For example, when lower levels of education are evident, it is clear that income is generally reduced. Correspondingly, when income is

reduced, we tend to see poorer health outcomes. Thus, while we cannot establish that an individual's poor health or lower income is caused by lower education, we can establish that, among those with lower education, there is a likelihood that income and health will be correspondingly low.

Townson's (1999) examination of the relationship between wealth and health provides a similar analysis, although she explores slightly different factors, including: income and social status, education, housing, age, unemployment, gender, social cohesion and income distribution.

The following sections provide an overview of what can be included as some of the various socio-economic indicators of health, as identified by the ACPH report, Townson and other similar research.

Gender and Age

Women and men have different experiences of health and illness, and different health care needs. In particular, the nature of chronic illness differs significantly by gender. There are differing health care needs along the age continuum, and it seems apparent that for most people, health declines to a large extent in the senior years. Young adults have different health care needs from their parents or grandparents, and their own children.

> "While women live longer than men, they are more likely to suffer depression, stress overload (often due to efforts to balance work and family life), chronic conditions such as arthritis and allergies, and injuries and death resulting from family violence." (ACPH, 1999: viii)

Income and Income Distribution

There is a wide range of research and literature addressing the decreased rates of health indicators among those in the low income sectors (see discussions in Donner, 2002 and Raphael, 2001). It is clear that those who are less able, for a variety of personal and societal-level reasons, to support themselves and their family are somewhat bound to be less healthy. It is easy to see how the accumulation, or lack, of wealth impacts on a nation's health. We have only to compare the various indicators of wealth and the statistics on health and wellness of the poorer and richer countries, or regions within any given country - or compare the television advertisements for Oxfam or CARE Canada with those for local vacation

resorts. However, it is not just personal income that relates to the health of individuals and groups in societies. Research also indicates that, even within relatively wealthy countries, disparities in distribution of that wealth result in staggeringly different health outcomes for poorer groups within the larger wealthy society (Wilkinson, 1996; Townson, 1999).

Social Environment
Recent research indicates the necessity of examining a variety of factors in relation to women's health, including the structural conditions affecting women's health (Reutter, Newfeld, and Harrison, 2000). These structural conditions relate to the wider political and economic spheres of life, as well as such things as societal and family support networks and the experience of violence within the home or workplace.

Physical Environment
A variety of elements can contribute to a person's experience of the physical environment in which s/he lives. The presence of tobacco smoke and other toxins or hazards within the home or workplace affects the health of individuals. On a broader scale, the availability of adequate shelter and affordable housing greatly impacts on day-to-day life for various sectors of the population. On a more global scale, the forces of climate change and the availability of organically-grown produce are other factors affecting our health.

Education and Literacy
A person's relationship to employment is often dictated by the attainment of education and literacy. In populations where we see lower levels of education and literacy, there is generally poorer health and fewer abilities to prevent illness. Unequal access to education and literacy result in unequal experiences in many other spheres of life, including health.

Personal Health Practices/Genetics
While all of the larger-scale, or societal-level, factors mentioned above impact upon the health of populations, personal health practices and response-behaviours, along with pre-disposed genetics, are also important in predicting the health outcomes for individuals and populations. If a person is pre-disposed to diabetes, or smokes, for example, health outcomes are bound to be somewhat negatively impacted.

Access to and Utilization of Health Services

All of the above discussion relates to a society's or individual's health and illness, and their corresponding need for, access to, and utilization of a variety of health care services. Obviously, the more experiences of ill health within any society, the more requirement for health care. On the other hand, if health care is required but is not accessible for whatever reason (e.g. lack of development of societal infrastructure, personal wealth, etc.), health outcomes will likely show at least some degree of decrease. However, there is research that indicates that the level of health services is not necessarily related to the extent of health - see discussion in Donner, 2002). Further study indicates that economically deprived women may be more likely to present with more advanced breast cancer, for example, than women living in more affluent areas (Macleod, et al., 2000) - which may be related to a reluctance to access health services, or a lack of access to the necessary screening and other preventive care. Additionally, low-income women are the least likely to participate (or perhaps be targeted) in breast cancer early detection screening programs, although they have a high mortality from breast cancer (Hardy, et al., 2000).

Poverty and Social Exclusion

The definition of social exclusion varies according to the source, but may be seen to include at least some elements of material and/or social deprivation (e.g. low income, limited access to education, lack of participation in decision-making or other social activities/groups). It is important to note that, while deprivation usually refers to the lack of something, it can also refer to over-abundance or over-exposure, in the case of exposure to harmful chemicals.

> "Individuals who suffer from material deprivation have greater exposures to negative events such as hunger and lack of quality food, poor quality of housing, inadequate clothing, and poor environmental conditions at home and work. In addition, individuals suffering from material deprivation also have less exposures to positive resources such as education, books, newspapers, and other stimulating resources, attendance at cultural events, opportunities for recreation and other leisure activities, and involvement in other stimulating activities that contribute to human development over the life span." (Raphael, 2001: 21-22)

Negative outcomes in the above-noted indicators, or social determinants, of health generally add up to an experience of social exclusion. For example, those with lower education, less "successful" experiences in the labour force, less connection to the school system (youth), less political decision-making (youth and women), inequitable access to material resources, or more exposure to things that are dangerous to health, can be said to experience some degree of social exclusion. The impacts on health of social exclusion are discussed below.

Social Exclusion and Health

The North York Heart Health Network commissioned Dr. Dennis Raphael, of York University in Toronto, to write a report on significant findings of their heart health study. The case study of cardiovascular disease in this project provides a good example of how social exclusion manifests itself into physical conditions and symptoms that cause new and/or exacerbate existing poor medical conditions.

This study shows the relationship between low income, as an indicator of social exclusion, and the major causes of heart disease. The data refute the recently promoted idea that patients of heart disease need primarily to look to their own lifestyle, or some personal risk factors, to find the root of their health problem. In fact, as Raphael illustrates, most people with this disease have very little opportunity to change the largest socio-economic factors that cause and affect this disease. Even when personal risk factors are statistically accounted for, Raphael points out that there can be determined distinct "neighbourhoods" (as in geographic locales) of cardiovascular disease.

A significant finding from the heart health study that has implications for FMP data is that there are indications in ongoing medical research that, where low income results in material deprivation early in life, there are long-term repercussions on health of these early years - even though a person may go on to live under relatively better conditions!

Low income can be seen to be responsible for creating the context of early experience of material deprivation, and later high psychological stress and the related adoption of health-threatening behaviours. The physical manifestations of low income that relate to cardiovascular disease include: high blood pressure, angina; high body mass index; and a propensity for tobacco usage.

Raphael indicates that while many discussions of "behavioural risk factors" assume these are adopted through voluntary lifestyle choices, "it is becoming increasingly clear that patterns of health behaviours are strongly shaped by the social and economic environments in which people live. High levels of stress produce behaviours aimed at ameliorating tensions such as high fat diets and poor nutrition, and tobacco use." (2001: 26-27) People, he indicates, do not have equal choices about how they live their lives.

Research indicates that the greater, and more extended, the experience of social exclusion, the greater the negative impact on health.

> "A body of evidence is now emerging which shows that health outcomes in adulthood reflect the accumulating influence of poor socioeconomic circumstances throughout life. Adverse socioeconomic conditions in early life can produce lasting increases in the risk of cardiovascular disease, respiratory illness, and some cancers late in life." (Raphael, 2001: 22)

In addition to the focus on early life, research indicates that there are a number of "critical periods of the life course span during which individuals are especially vulnerable to the effects of material and social deprivation, [including]:

> fetal development
> birth
> nutrition, growth and health in childhood
> educational career
> leaving parental home
> entering labour market
> establishing social and sexual relationships
> job loss or insecurity
> parenthood
> episodes of illness
> labour market exit
> chronic sickness." (Raphael, 2001: 23)

Finally, while poverty has the greatest impact on the health and well-being of those who are among the poor, it is also suggested by research that poverty and other inequities affect the lives of all citizens. As those who

accumulate more wealth seek to protect it, for example, they are also suffering the ill effects of such unequal distribution, manifested in fear and guarded social relationships (see discussion in Raphael's report, and Donner, 2002, for example).

Poverty and Lone-Parenting

Of particular note regarding the health of lone parents in Canada (the vast majority of whom are women) we see that they are the most likely family-type to experience poverty. Given what we know about the links between poverty and health, it is not surprising to find that the health of lone-parent mothers in Canada is lower than that of mothers in two-parent families.

The National Population Health Surveys of 1994-95 and 1996-97 provided the basis for a recent publication by Statistics Canada exploring the health of lone mothers (Perez and Beaudet, 1999). In this analysis, we see a number of issues that pertain to the FMP participants.

The process of becoming a lone-parent mother, even when "chosen", is still reportedly a stressful one. As we have seen in other reports of the FMP, family life is dynamic - families can be two-parent at one time, and one-parent at another. In the Canadian data, we see that lone-parent mothers' self-rating of health is significantly lower than that of mothers in two-parent families.

It is important to note that lone-parent mothers in the Canadian data source, did not have statistically significantly higher health service utilization than mothers in two-parent families. Those in the "new" lone mother category had the highest probability of moving - a notably stressful process. However, those who had been lone parents for an extended period of time actually reported greater support than did the "new" lone mothers. It is noted by the authors of the report that this may be due to the disruption in social networks experienced by those who have recently become lone parents. On the other hand, it may also be due to the fact that feelings of isolation decrease, or that lone parent mothers develop new social networks, over time.

Perez and Beaudet (1999) remind us that, while there are statistically significant indicators of ill health among lone parents, much of the variance in health remains unexplained. That is, the characteristics of low education and income, for example, do not explain away poor health. The

relationships among personal characteristics, including health, and social situations is much more complex than simple bi-variate, or even the more advanced capabilities of regression analysis, can address.

The Health of Young Adults

While there are many issues facing young adults in the societal context of various inequities, there is agreement among a variety of sources that factors impacting the projected health of young adults can be identified very early in life. The ACPH (1999) report, for example, targets healthy child development as one of three main areas for strategic policy development. Family poverty is only one aspect of the context within which the health of children may be negatively affected. Inadequate parenting and other child-care, along with the fear of violence in society, changing family structures, and a lack of integrated service delivery are also implicated in the ill health of children and young adults.

Indicators of health occur early in life. Low birthweight, for example, along with reduced incidence and duration of breastfeeding, are seen to be related to poverty and to ill health later in life (see, for example, Guttman and Zimmerman, 2000; Milligan, et al. 2000; and Raphael, 2001).

Within the context of leaving school early, young adults face particular impacts on their later abilities to be healthy:

> "The increasing emphasis on early intervention and prevention has arisen from the stark realization that it is very difficult to reintegrate people into society once they have been excluded (Kagan, 1996: 157). Results of the FMP indicate that the most effective means of reducing expenditures for health, justice, and social services will probably come from keeping young people engaged in the school system. Maintaining a young person's connection to the larger society through engagement in the school system can reduce experiences of social exclusion and its associated negative consequences. However, it is clear that much of the disadvantage exhibited through the school system is connected with disadvantage in the home, making intervention a much more difficult process." (Dechman, 2001b: 59)

Thus, we can deduce that among those who are most likely to have poorer health, female lone parents and youth from these and other similarly disadvantaged families are the most common groups.

A discussion of recent social and economic trends in other reports of the FMP provides an overview of several changes in the lives of Canadians, which helps to place the FMP health-related data analysis in context. Increasing divorce rates and births to single mothers have been related to an increase in the number of lone-parent families, and "today, approximately 1 in 5 children live in a lone-parent family at any particular point in time and approximately half of all children will live in a lone-parent family at some time while they are growing up" (Dechman, 2001b: 3). In previous reports, it is documented that the economic well-being of young adults has deteriorated, and that most lone-parent families are poor. In light of these and other findings from the FMP data, analysis of the health-related data reveals few surprises, but provides further opportunity to highlight the important linkages among a variety of socio-economic factors - specifically the relationship between poverty and indicators of ill health.

Findings from the Family Mosaic Project

Health variables examined for this report fall largely into two categories, self-reported health and health service utilization. Self-reported measures of health and wellness included: smoking status, alcohol consumption, self-rating of overall health and experience of acute and chronic illness. Health service utilization variables included: number of visits to general practitioners (GP's) and specialists, amounts paid to GP's and specialists, number of in-patient hospitalizations, length of in-patient stay and number of out-patient hospitalizations (ie., day surgeries).

The independent variables examined in this report included: mothers' marital/family status, mothers' age, mother's education and mothers' experience of poverty. These independent variables were examined in relation to health indicators for both the mothers and young adults in the study. Additionally, for the young adults, we included early school leaving, early child bearing, and current activity/attachment to school and/or labour force as independent variables. Please see Appendix A for a more detailed description of the variables examined.

One of the primary research goals of the FMP was to establish if there were significant linkages between marital status and a host of other characteristics and experiences of mothers and their first-born child. In relation to the health data, it is clear that marital status, in isolation, is not the strongest predictor of the health-related variables. What is clear for mothers, is that the experience of poverty is significantly linked to poorer health and personal behaviours (such as more regular tobacco usage) and to increased health service utilization (such as a higher number of GP visits). For young adults, we see that some of the indicators of their own health are linked to characteristics evident in the lives of their mothers (such as changes in family situations and mothers' education) as well as to their own experiences (such as having a child at an early age or early school leaving). The relationship among the various findings presented below will be interpreted in the Discussion section.

Throughout the FMP reports, attention has focused on the differing relationships of continuously married, single and divorced mothers to questions asked of mothers and young adults over the course of the study. Within the health-related data set, we have found marital status to be significantly related to a limited number of other variables. The following

section highlights the self-reported and health service utilization variables of mothers. It is followed by a similar section describing the statistically significant findings for young adults.

Please note that, although mothers' and young adults' data are presented together in this report, mothers were compared to mothers and young adults to young adults only. Although we examine the effect of certain characteristics of the mothers (eg., marital status history) on the health of the young adults, the health of the young adults is only compared to that of other young adults in the study.

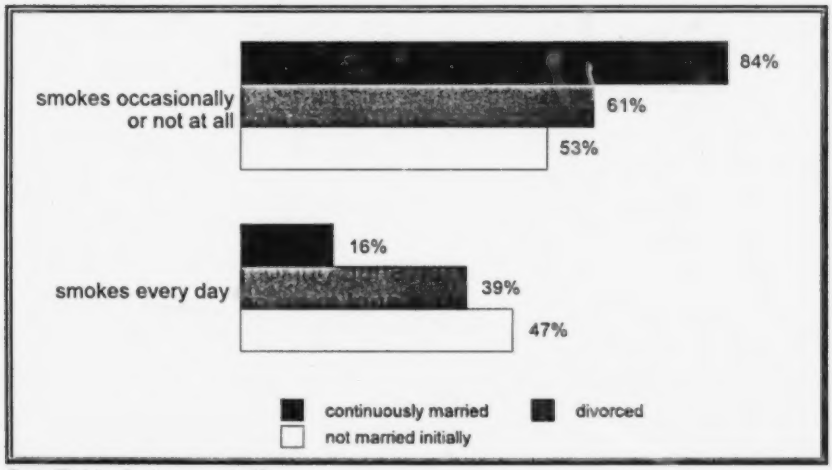
MOTHERS' SELF-REPORTED DATA

Within this data set, a sub-section of all collected data was chosen for analysis in relation to the health of mothers. The variables included smoking behavior, alcohol use, experience of acute and chronic illness, and self-rating of overall health.

Smoking

Within the self-reported data set, differences in smoking status were very much in evidence for many of the independent variables examined. Mothers' marital status history, her initial age[2], the extent of poverty[3] she experienced, her initial education[4], and her final education[5] are all significantly related to smoking behavior of mothers involved in this study. We see that mothers who were lone-parents at some time, were two and a half times more likely (42% versus 16%) to smoke everyday than those mothers who were continuously married throughout the course of this study (Phi=.29***)[6]. Lone-parents who were not married when their first child was born were slightly more likely to smoke everyday than mothers who became lone-parents through divorce and were almost three times more likely to smoke everyday than mothers who were continuously married (Cramer's V = .30***)[7].

Lone mothers were more likely to smoke every day.

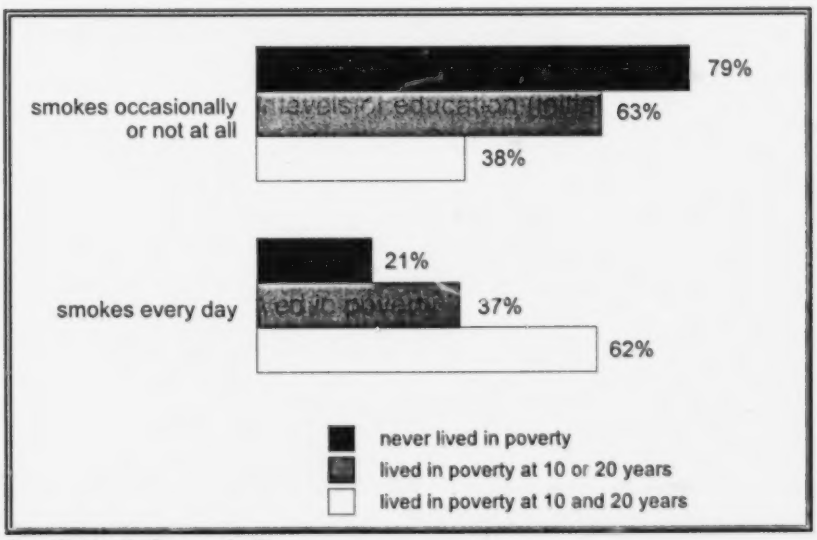


See Table 3, Appendix B

Among mothers, those who were under the age of 20 when their first child was born, those with greater experience of poverty, especially extended poverty, and those with lower levels of education (initial and final) were more likely to report smoking every day. See Appendix B for tabular summaries of these findings.

Mothers who experienced poverty at some point during the course of the study were more than twice as likely to smoke everyday (44% versus 21%) as mothers who had never lived in poverty. Mothers who had experienced extended periods of poverty (ie., living in poverty at both the 10-year and 20-year data collections) were the most likely of all to smoke everyday. Sixty-two percent of these mothers smoked everyday compared to 21 percent of mothers who had never lived in poverty (Somer's d = .24***)[8].

The majority of mothers who experienced long-term poverty smoked every day.

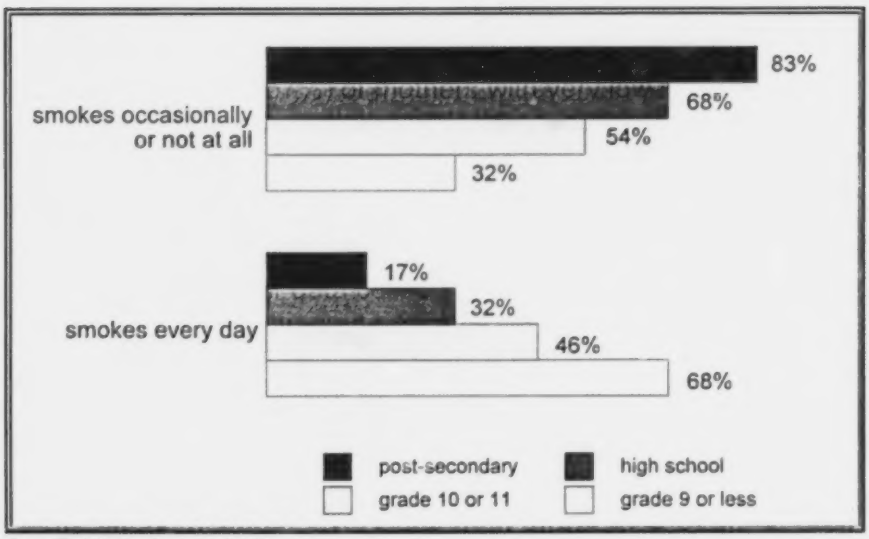


See Table 6, Appendix B

Mothers' educational attainment was also significantly related to smoking status. More than half (57%) of mothers with very low levels of initial education (grade 9 or less) smoked everyday compared to only 16 percent of mothers who had completed high school when their first child was born (Somer's d = -.26***).

Similarly, the majority (68%) of mothers who still had only grade 9 or less at the time of the 20-year data collection smoked everyday compared to 17% of mothers with some post-secondary education (Somer's d = -.25***).

Mothers with very low levels of education in 1999 were four times more likely to smoke every day than mothers with some post-secondary education



See Table 8, Appendix B

When mothers' education, mothers' age, mothers' experience of poverty, and time spent as a lone parent were entered into a logistic regression analysis, only mothers' education and time spent as a lone parent remained as significant predictors of mothers' smoking status.

Mothers' education and family status are the strongest statistical predictors of smoking status

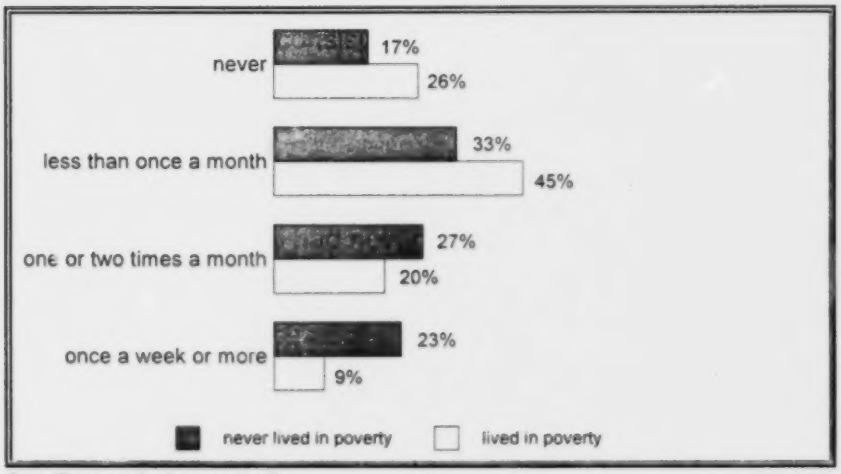
	B	S.E.	Wald	Sig.	R	Exp(B)
Total years of education	-.30	.05	36.35	.00	-.21	.74
Initial age	.02	.03	.47	NS	.00	1.02
Experience of poverty	.34	.21	2.53	NS	.03	1.41
Total time spent as a lone parent	1.30	.21	37.80	.00	.22	3.67

Alcohol Consumption

Reported alcohol use for mothers revealed links that may, at first glance, appear surprising, though consistent with the findings of others[9]. In comparison to the results found for mothers' smoking, the patterns found for mothers' alcohol use were quite different.

Mothers who had lived in poverty at some point during the course of the study were considerably less likely to drink alcohol on a regular basis (9 percent) than mothers who had never experienced poverty (23 percent) (Somer's d = -.24***).

Mothers who experienced poverty were significantly less likely to drink alcohol on a regular basis than were those mothers who had never lived in poverty.

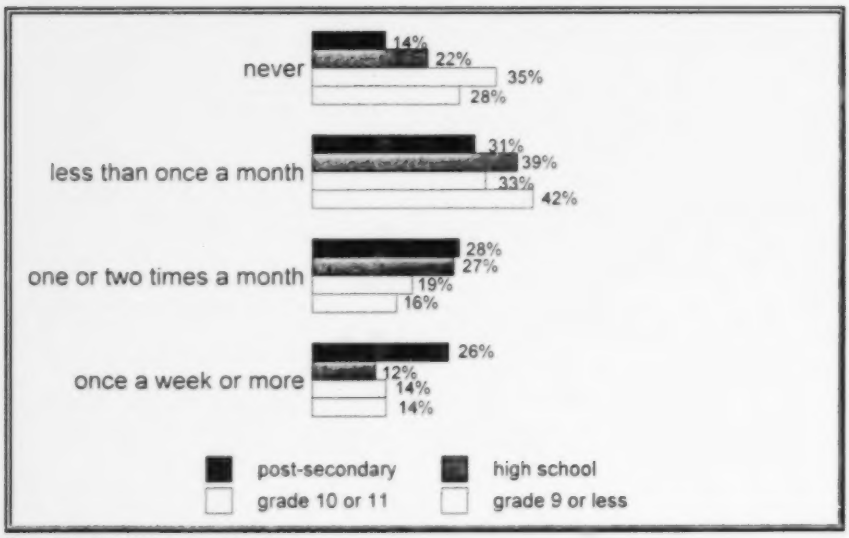


See Table 10, Appendix B

Mothers with the highest levels of education were also more likely to drink alcohol on a regular basis as compared to mothers with lower levels of education. Mothers who had very low levels of initial education were considerably less likely (15% versus 27%) to report consuming alcohol on a regular basis in comparison to mothers who had completed high school (Somer's d = .23***).

Similarly, mothers with higher levels of final education were more likely to report drinking alcohol on a regular basis than mothers who had low levels of education by the time of the 20-year data collection. Mothers with low levels of final education were twice as likely to report that they never consumed alcohol and only about half as likely to report drinking alcohol once a week or more compared to mothers who had some post-secondary education (Somer's d = .21***).

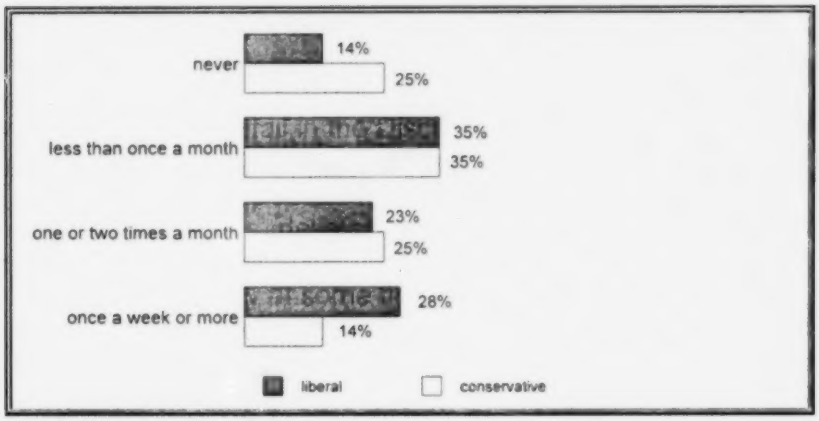
Mothers with higher levels of education in 1999 were more likely to drink alcohol on a regular basis



See Table 13, Appendix B

As described in more detail in the Discussion section, we have developed, through another related variable, a possible explanation for these findings. A partial explanation may be provided through an examination of an index of "conservative attitudes" developed from data on women's views about gender-specific home and employment roles[10]. We find that, among those who experienced poverty at some time and/or had lower levels of education, there is a tendency towards more "conservative" attitudes. This index of conservativeness is then associated with alcohol consumption.

Mothers with conservative views about mothering were significantly less likely to drink alcohol on any regular basis.



See Table 14, Appendix B

When mothers' education, mothers' age, mothers' experience of poverty, time spent as a lone parent and the index of conservative attitudes were entered into a regression analysis, the conservative attitude index, was found to be the strongest predictor of mothers' alcohol consumption.

Mothers' attitudes about mothering, level of education and experience of poverty are the strongest statistical predictors of alcohol consumption

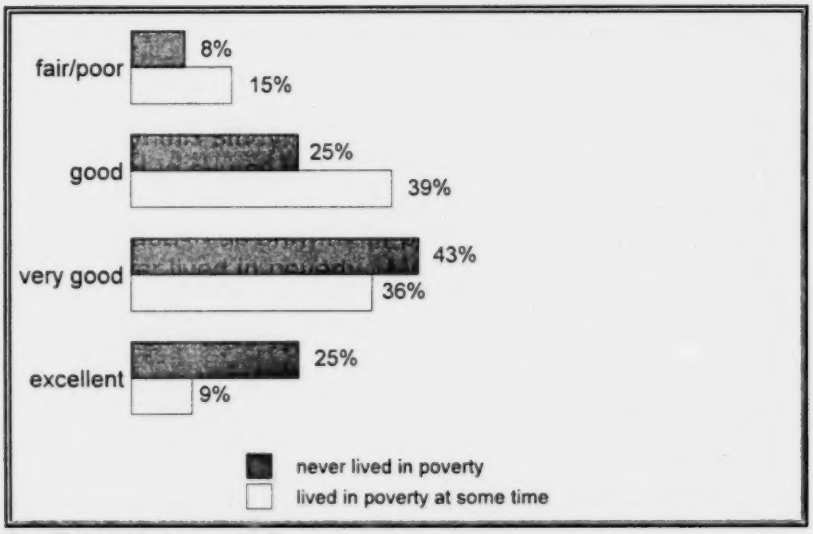
	Beta
Total number of years of education	.15**
Initial age	NS
Experience of poverty	-.14**
Total time spent as a lone parent	NS
Conservative versus liberal attitudes about mothering	.18***

R = .35***

Self-Rating of Overall Health

Among mothers in this study, we see that income and education are also significantly linked to overall health ratings. Mothers who lived in poverty at some point during the course of this study were almost twice as likely to rate their overall health as only fair or poor (15% versus 8%) compared to mothers who never lived in poverty. Mothers who never lived in poverty, on the other hand, were twice as likely to rate their own health as excellent as mothers who had lived in poverty at some point (Somer's d = -.28***).

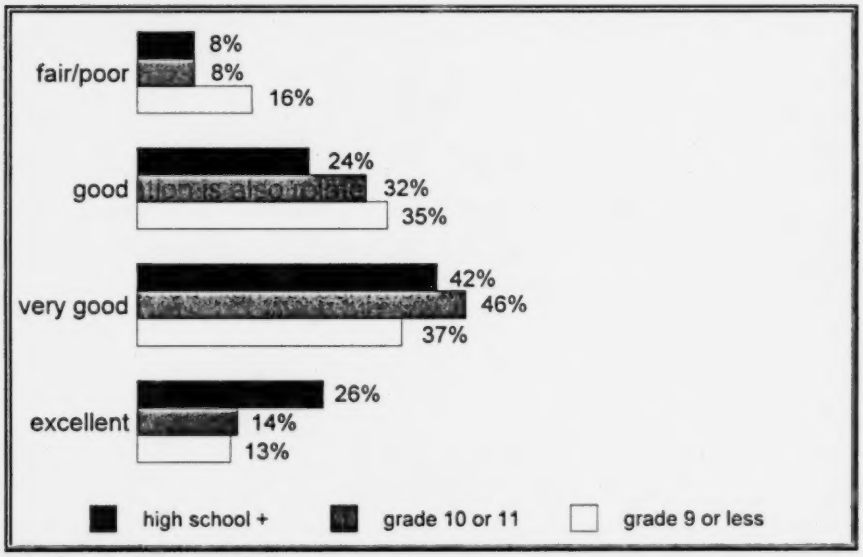
Mothers who had experienced poverty were far less likely to rate their own overall health as "excellent".



See Table 16, Appendix B

Mothers' education is also related to their self-rating of health. Mothers who had very low levels of initial education were twice as likely (16% versus 8%) to rate their health as only fair or poor. Conversely, mothers who had completed high school when their first child was born were twice as likely to rate their health as excellent compared to mothers with grade 9 or less (Somer's d = .16***).

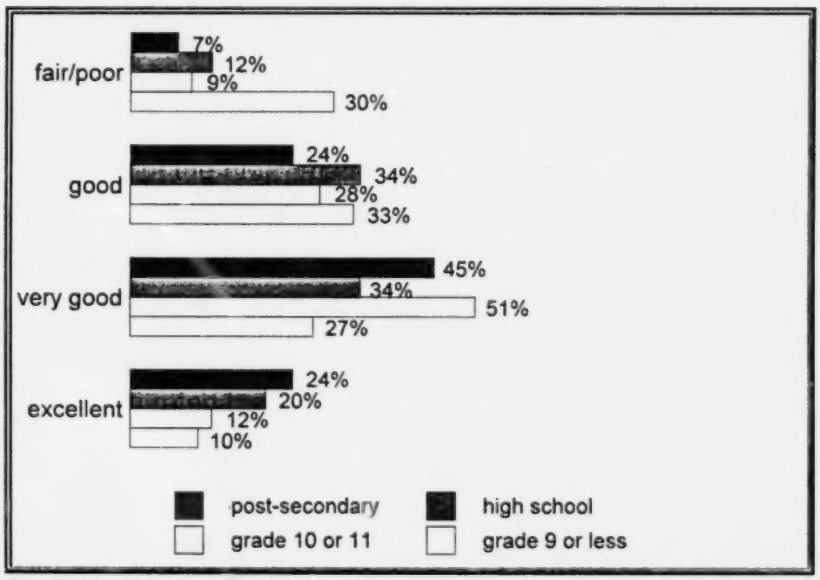
Mothers with lower initial levels of education were much more likely to rate their own overall health as "fair" or "poor".



See Table 18, Appendix B

Over the course of the FMP, many of the mothers undertook educational upgrading. We can see that the relationship between low educational attainment and poor self-rating of overall health endures and is strengthened over time. Close to one third of mothers who still had very low levels of education by the time their first child was 20 years old rated their overall health as only fair or poor. In comparison, only 7 percent of mothers who had some post-secondary education by the time their child was 20 years old rated their health as only fair or poor.

Mothers with lower levels of education in 1999 were far more likely to rate their own overall health as "fair" or "poor" than were mothers with higher final levels of education.



See Table 19, Appendix B

When mothers' education, mothers' experience of poverty, time spent as a lone parent, and experience of chronic illness were entered into a regression analysis, all four independent variables were found to be significant predictors of mothers' self-rating of overall health[11]. Not surprisingly, the strongest predictor of self-rating of health was whether or not the mother had one or more chronic illnesses during the course of the study. Interestingly, mothers' educational attainment was almost as strong a predictor of her rating of health as her experience of chronic illness. Experience of poverty, and to a lesser extent, time spent as a lone parent were also statistically significant predictors of mothers' health rating.

Mothers' experience of chronic illness and educational attainment are the strongest statistical predictors of self-rating of health

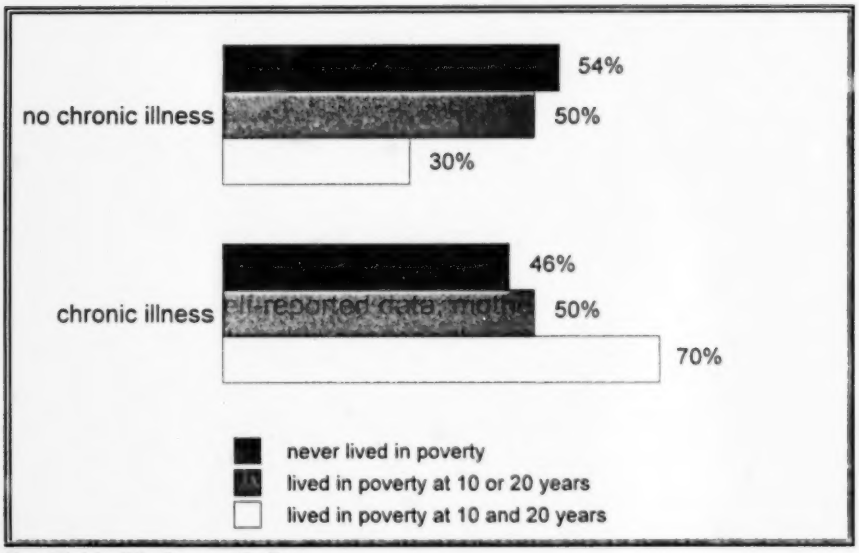
	Beta
Total number of years of education	.26***
Experience of poverty	-.16***
Percent of time spent in two-parent family	.10**
Experience of chronic illness	-.30***

R = .49***

Self-Reported Experience of Chronic Illness

Finally, in relation to self-reported data, mothers' experience of chronic illness mirrors the relationship between the other reported variables and poverty.

Mothers who experienced long-term poverty were significantly more likely to report having a chronic illness than mothers who had not experienced poverty or who had experienced poverty of a shorter duration.



See Table 22, Appendix B

MOTHERS' HEALTH SERVICE UTILIZATION DATA

Participants in this study were asked if they would agree to share with the FMP some relevant components of their provincial health service utilization record. Thirty-one percent of the mothers (N=142) and 31% (N=132) of the young adults who were interviewed at the 20-year data collection agreed to share this data with the FMP. As the provincial health service utilization database has only been in existence since 1989, the data represents the years 1989 to 1999. The health service utilization variables examined included: number of visits to general practitioners (GP's) and specialists, amounts paid to GP's and specialists, number of in-patient hospitalizations, length of in-patient stay and number of out-patient hospitalizations (ie., day surgeries). As with the self-reported data, we see that mothers' education and mothers' experience of poverty are the independent variables most significantly related to health service utilization for mothers, although to a lesser extent, mothers' age and marital status history are also related to mothers' health service utilization.

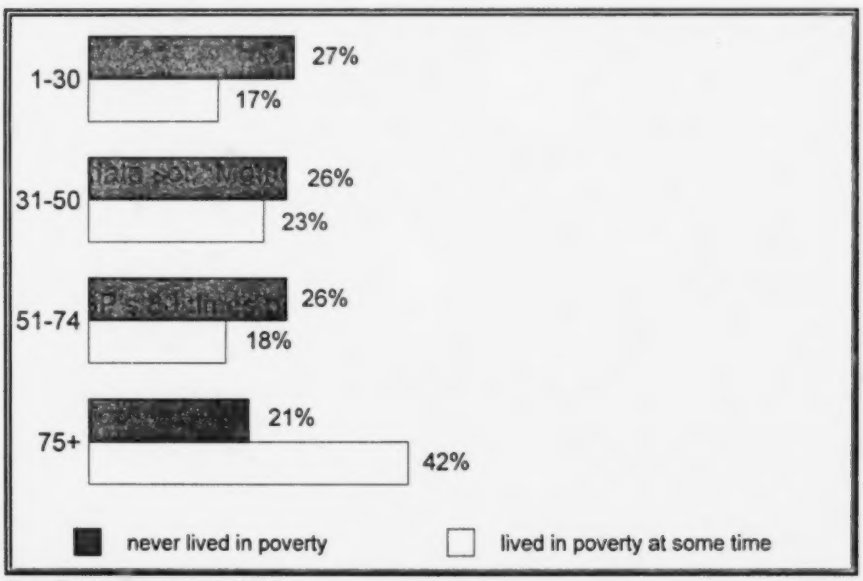
Number of General Practitioner (GP) Visits

Mothers who had been lone parents at some point during the course of the study had a significantly higher number of GP visits than mothers who were continuously married. Thirty percent of mothers who were lone parents at some point had 75 or more GP visits compared to 18 percent of mothers who were continuously married (Somer's d = .21**). There was also a statistically significant difference between the average number of GP visits for mothers who were continuously married (51 GP visits) and those who were lone parents at some point (67 GP visits)[12].

Mothers who were under the age of 20 when their first child was born were also more likely to have had a higher number of GP visits. Thirty-five percent of these younger mothers had 75 or more GP visits compared to 17 percent of mothers who were 20-28 years old when their first child was born (Somer's d = -.17**). On average, the youngest mothers had 72 GP visits compared to 51 GP visits for the 20-28 year old mothers (F=6.95***).

The experience of poverty and lower levels of education are also significantly related to the average number of GP visits for the mothers within this data set. Mothers who had lived in poverty at some point during the course of the study were twice as likely (42% versus 21%) to have had 75 or more GP visits as compared to mothers who had never lived in poverty (Somer's d = .23**). On average, mothers who had lived in poverty saw their GP's 80 times between 1989 and 1999 while mothers who had never experienced poverty saw their GP's 52 times (t = -3.69***).

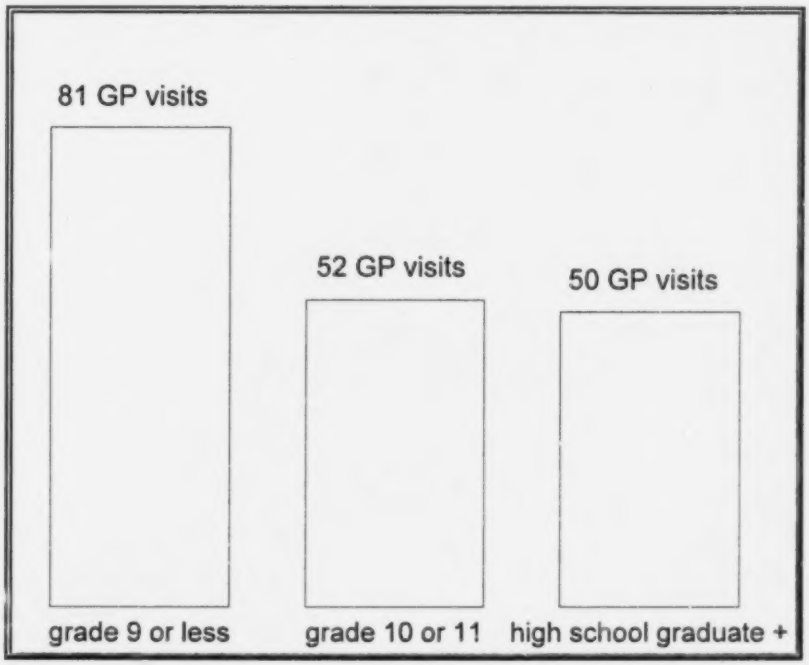
Mothers who had lived in poverty had a higher number of GP visits than did those who had never lived in poverty.



See Table 26, Appendix B

Mothers who had very low levels of education when their first child was born had a much higher number of GP visits than mothers with higher levels of education. Thirty-seven percent of mothers who had grade 9 or less saw their GP's 75 times or more between 1989 and 1999. In comparison, only 18 percent of mothers who were high school graduates had 75 or more GP visits (Somer's d = -.24***). On average, mothers with grade 9 or less had 81 GP visits, compared to 52 visits for mothers who had 10 or 11 years of education and 50 visits for mothers who were high school graduates (F=9.00***).

Mothers with lower initial levels of education had a much higher average number of GP visits than did mothers with higher education.

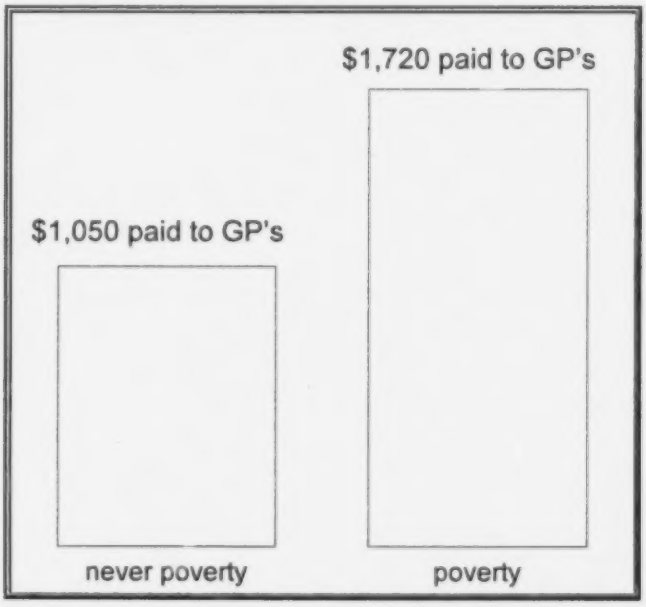


Amounts Paid to GP's

Not surprisingly, the data for amounts paid to GP's corresponds closely with the data for the mothers' number of GP visits. As such, there were small, though statistically significant differences in amounts paid to GP's based on mothers' marital status history (see Appendix B, Table 29), though the more substantial differences appear to be rooted in mothers' education and their experience of poverty.

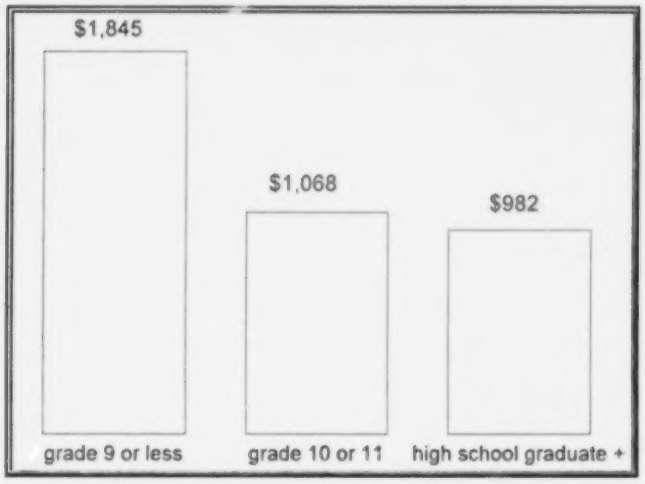
Mothers who had lived in poverty at some point during the course of the study had much higher amounts paid to GP's than mothers who had never experienced poverty (see Appendix B, Table 30). On average, amounts paid to GP's totaled $1,720 for mothers who had lived in poverty at some point during the course of the study and $1,050 for mothers who had never experienced poverty (t = -4.12***).

Average amounts paid to GP's were much higher for those mothers who had experienced poverty than for mothers who had not experienced poverty.



As was the case with number of GP visits, amounts paid to GP's also varied considerably depending on the mothers' initial level of education (see Appendix B, Table 31). On average, amounts paid to GP's were highest for mothers with the lowest levels of initial education. Mothers who had only grade 9 or less at the time their first child was born had average GP costs of $1,845 compared to $982 for mothers who had completed high school (F = 14.11***).

Average amounts paid to GP's were highest for mothers with low levels of initial education.



Number of Specialist Visits and Amounts Paid to Specialists

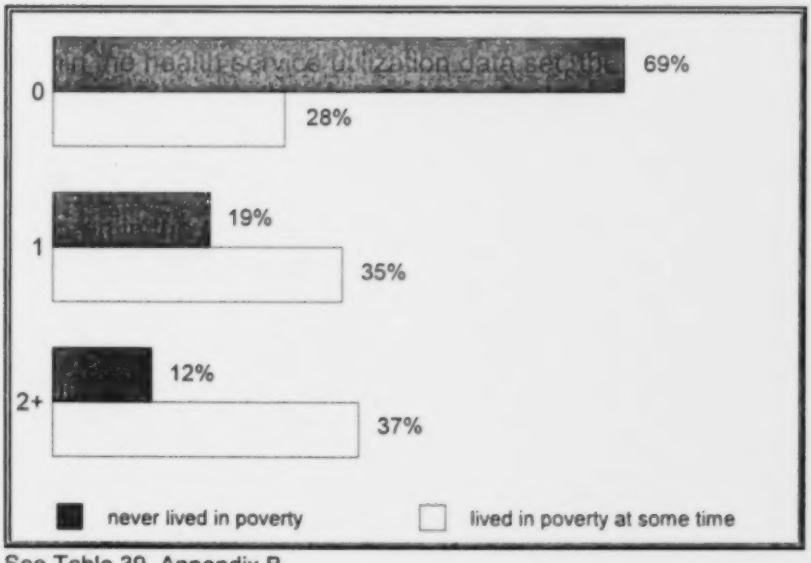
The only statistically significant difference found between groups in relation to number of specialist visits was between mothers who had and had not experienced poverty (see Appendix B, Table 33). Though a few statistically significant differences were found in relation to amounts paid to specialists using categorized rather than continuous data (see Appendix B, Tables 34 and 35), tests of means (for continuous data) revealed no statistically significant differences.

In-Patient Hospital Admissions

Finally, within the health service utilization data set, the number of in-patient admissions mirrors the aforementioned relationships, with mothers' experience of poverty and their low educational attainment having the strongest associations with in-patient hospitalizations.

As can be seen in the graph below, the majority (69%) of mothers who had never lived in poverty had no in-patient hospitalizations between 1989 and 1999. In comparison, only 28 percent of mothers who had lived in poverty at some point during the course of the project had no in-patient hospital admissions. Conversely, mothers who had lived in poverty at some point, were three times more likely (37% versus 12%) to have had 2 or more in-patient admissions to hospital than were mothers who had never experienced poverty (Somer's d = .43***).

Mothers who experienced poverty were much more likely to have had 2 or more in-patient admissions.

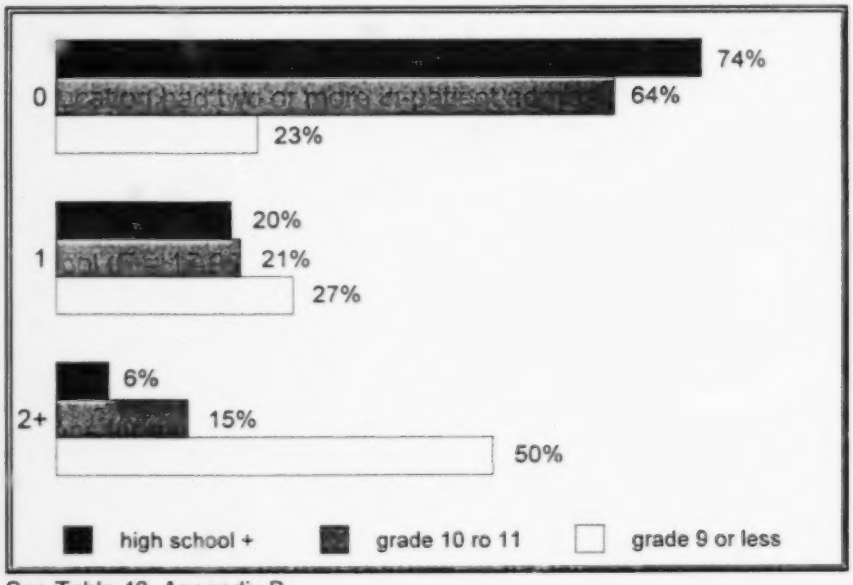


See Table 39, Appendix B

Mothers' number of in-patient admissions varied considerably depending on their levels of education. Half (50%) of mothers with very low levels of initial education had two or more in-patient admissions between 1989 and 1999 compared to only 6 percent of mothers who initially had completed high school (Somer's d = -.28***). Mothers who had grade 9 or less at the time their first child was born had an average of 2.10 in-patient admissions compared to .43 in-patient admissions for mothers who had completed high school (F = 17.95***).

Similar results were obtained for mothers' final educational attainment (see Appendix B, Table 42). Mothers who had grade 9 or less by 1999 had an average of 1.84 in-patient admissions compared to .39 in-patient admissions for mothers with some post-secondary education (F = 11.07***).

Mothers with lower initial levels of education were much more likely to have had a higher number of in-patient admissions.



See Table 40, Appendix B

For each of the health service utilization variables where significant results were found at the bivariate level, a regression analysis was conducted where mothers' education, mothers' experience of poverty, time spent as a lone parent and mothers' experience of chronic illness were entered as predictors. In all cases, the mothers' experience of poverty was found to be the strongest statistical predictor of mothers' health service utilization, stronger even than the mothers' experience of chronic illness.

Mothers' experience of poverty is the strongest statistical predictor of health service utilization

	Beta		
	# of GP visits	**Amount paid to GP's**	**# of in-patient admissions**
Total years of education	-.00	-.02	-.15*
Experience of poverty	.26***	.28***	.28***
Total time spent as a lone parent	.10	.09	.01
Experience of chronic illness	.22***	.23***	.15*
R	.39***	.41***	.40***

YOUNG ADULTS' SELF-REPORTED DATA

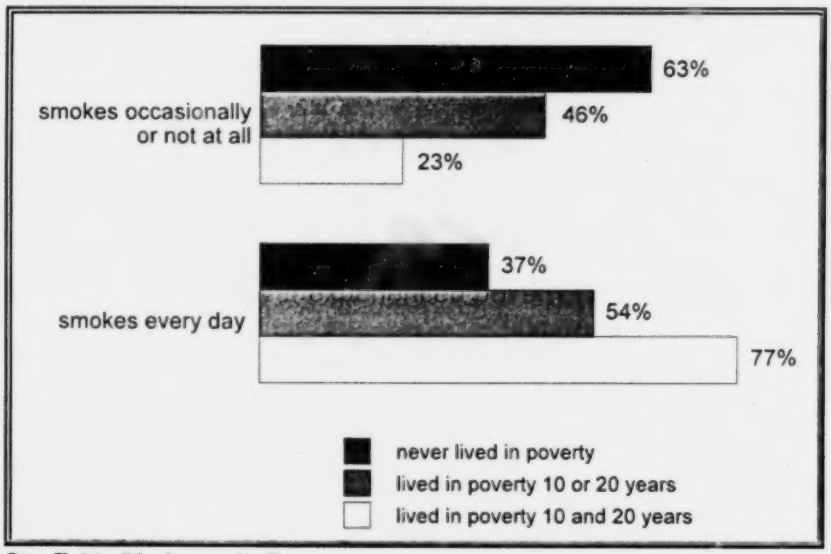
Here we examined the same health variables as we did for the mothers (ie., smoking, alcohol use, self-rating of health). While we look at links between these and some of the same independent variables, (eg., mothers' marital status, family poverty, mothers' education), we also included variables specific to the young adults in the sample (eg., early school leaving, early child bearing, and current activity/attachment to school and/or labour force) as independent variables in these analyses.

Smoking

As was the case with the mothers' data, whether or not young adults in the sample smoked varied depending on a number of other factors. For young adults, we see evidence of the enduring nature of some of the same factors that were linked to the smoking status of their mothers.

Extent of family poverty, was significantly related to smoking in young adults. Young adults who had experienced long-term family poverty were more than twice as likely to smoke everyday (77% versus 37%) than were young adults who had never experienced poverty (Somer's d = .23***).

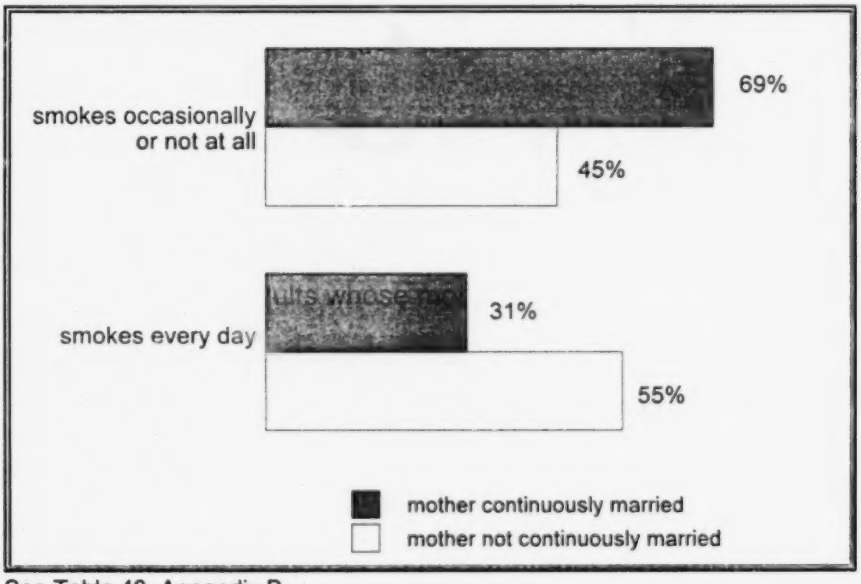
Young adults who had lived in poverty were more likely to smoke every day than those young adults who had never lived in poverty. Close to 80 percent of young adults who had lived in poverty for an extended period of time smoked every day.



See Table 50, Appendix B

Mothers' marital status history was also significantly related to young adults' smoking status. More than half (55%) of young adults whose mothers had been lone parents at some point smoked everyday compared to 31 percent of young adults whose mothers had been continuously married (Phi = .24***).

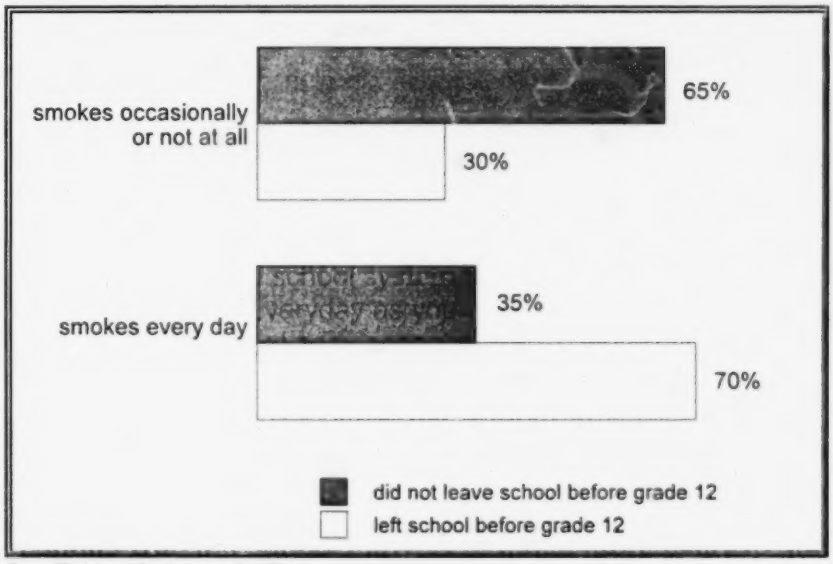
Young adults whose mothers had been lone parents were significantly more likely to smoke every day than were young adults whose mothers had been continuously married.



See Table 49, Appendix B

Young adults who left the school system before completing grade 12 were twice as likely to smoke everyday as young adults who had completed high school. Seventy percent of early school leavers smoked everyday compared to 35 percent of those who completed high school (Phi = .29***).

Young adults who left school early were much more likely to smoke every day than those young adults who had not left school early.



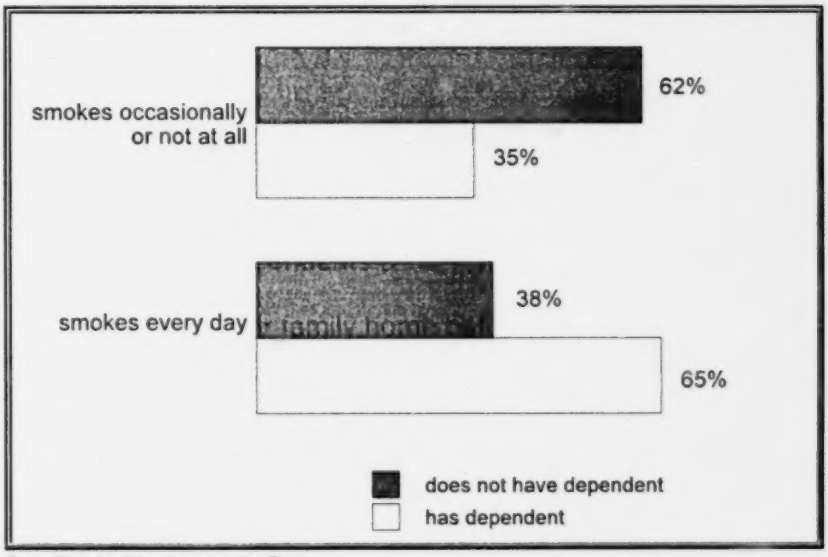
See Table 45, Appendix B

Interestingly, though significant differences in smoking status were evident between young adults currently attending versus not attending school, no such differences were evident between young adults who were currently working versus those who were not working (see Appendix B, Tables 47 and 48).

Young women who had a child by the time they were 20 years old were also more likely to smoke everyday. Sixty-five percent of the young women with dependents smoked everyday compared to 38 percent of young women without dependents (Phi = .19**)[13].

Young adults who left their family home before the age of 18 were also more likely to smoke everyday than young adults who did not leave home early (69% versus 39%) (Phi = .18***).

Young women who had a child before they were 20 were more likely to smoke every day than were young women who did not have a child.



See Table 51, Appendix B

When mothers' marital status history, experience of family poverty, and young adults' early school leaving status were entered into a logistic regression analysis, all three variables were found to be significant independent predictors of young adults' smoking status.

Early school leaving is the strongest statistical predictor of young adults' smoking status

	B	S.E.	Wald	Sig.	R	Exp(B)
Early school leaving	1.14	.25	20.85	.000	.17	3.11
Mother's marital status history	-.81	.20	16.64	.000	-.15	.44
Experience of family poverty	-.63	.23	7.86	.005	-.09	.53

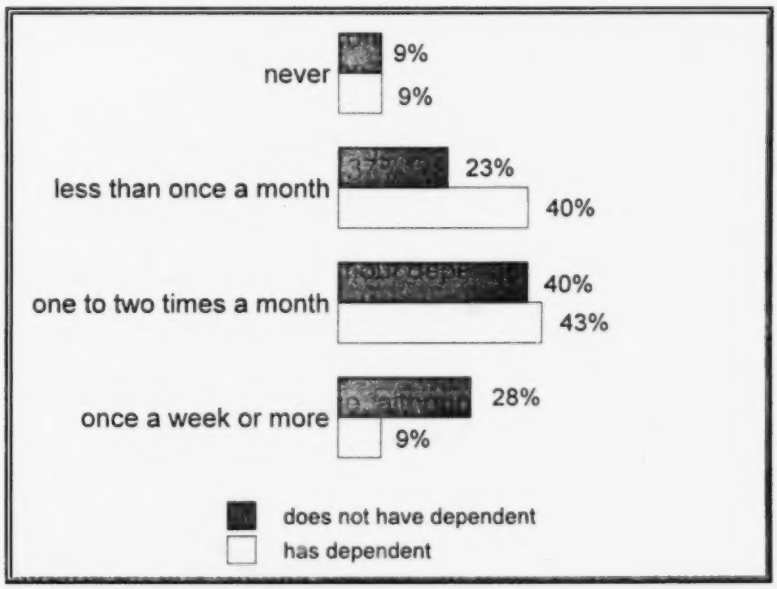
Alcohol Consumption

As was the case with mothers, alcohol use showed the opposite pattern in relation to poverty than did smoking. Those young adults who had experienced extended periods of poverty were much less likely to consume alcohol on a regular basis than young adults who had never experienced poverty (13% versus 37%) (Somer's d = -.23**).

Young mothers were also much less likely to consume alcohol on a regular basis than were young women without dependents (Somer's d = -.25**).

When these two variables (extended poverty and early child bearing) were entered into a regression analysis, both were found to be statistically significant predictors of alcohol use, although neither predicted a large amount of the variance observed in alcohol use[14].

Young women with at least one dependent were less likely to report using alcohol on any regular basis than were young women who did not have a dependent.



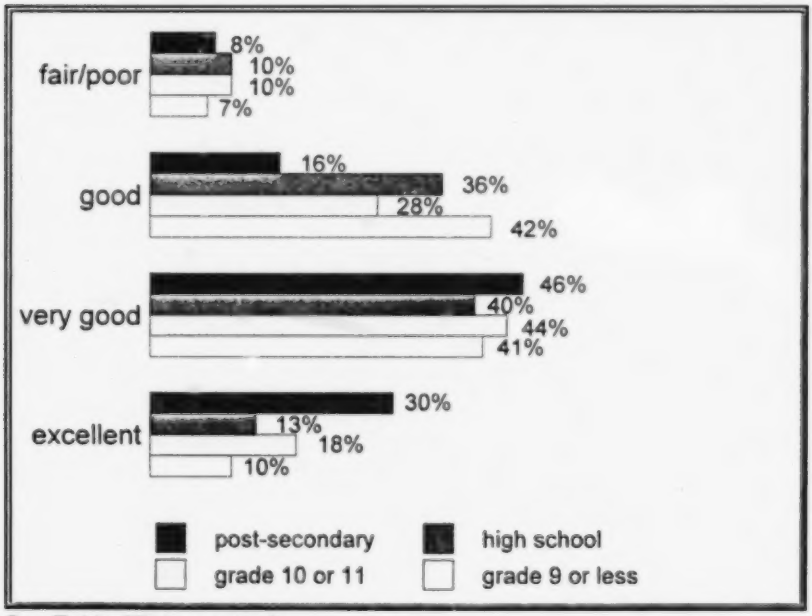
See Table 52, Appendix B

Self-Rating of Health

For young adults, self-reported overall health was related to a number of factors. We see evidence of the enduring nature of some of the same factors that were linked to self-rating of health for their mothers, particularly, mothers' educational attainment. In addition, factors related to the young adults' own experiences of early school leaving and early child-bearing were also linked to their self-rating of health.

Young adults whose mothers had some post-secondary education by the time of the 20-year data collection were three times more likely to rate their health as excellent as were young adults whose mothers had grade 9 or less (30% versus 10%) (Somer's d = .21***).

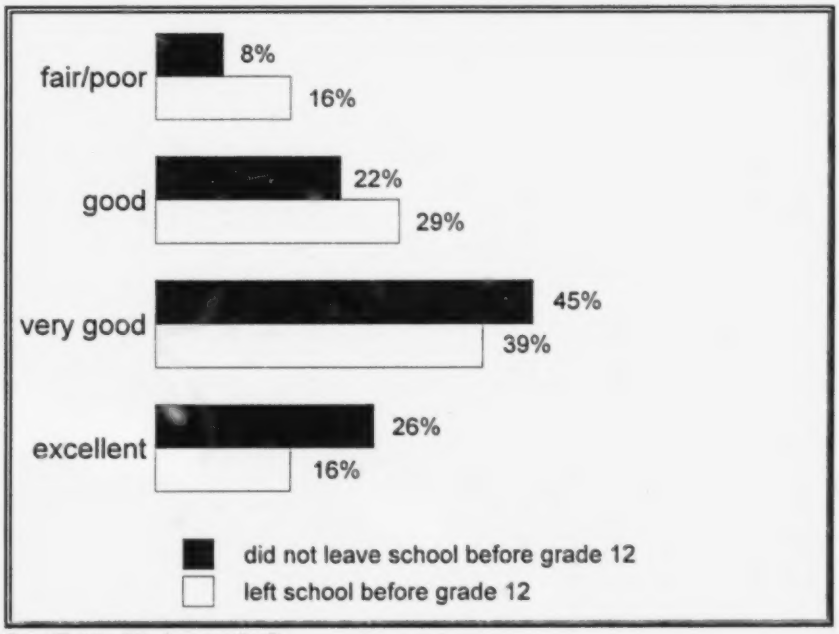
Young adults whose mothers had higher levels of education were much more likely to rate their own health as "excellent" than were those young adults whose mothers had low levels of education.



See Table 57, Appendix B

Among the young adults in the study, we see that self rating of overall health is also related to their own education and family status. Young adults who left school before completing grade 12 were twice as likely to rate their health as only fair or poor (16% versus 8%) and were considerably less likely to rate their health as excellent (16% versus 26%) than were young adults who had not left school early (Somer's d = -.20***).

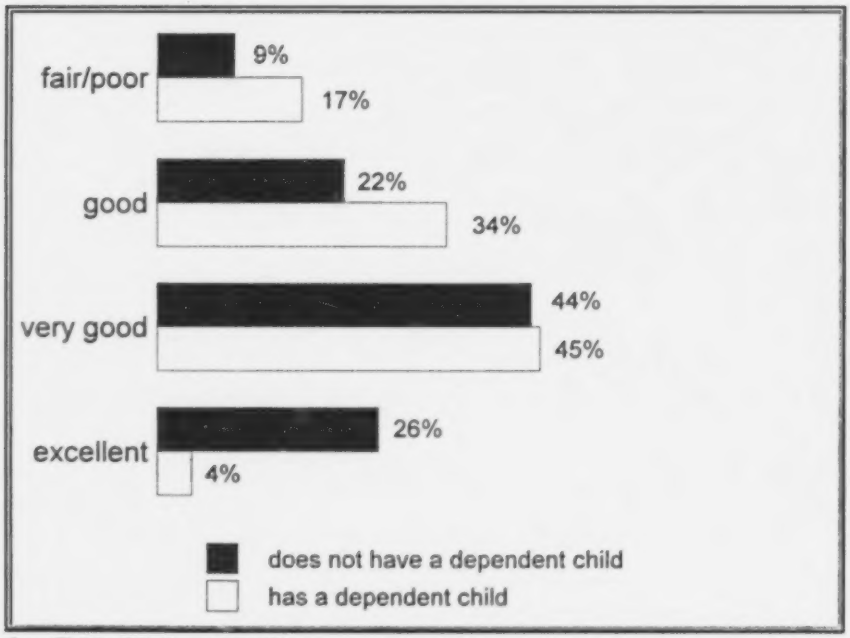
Young adults who had left school early were much more likely to rate their own overall health as "fair" or "poor" than young adults who had not left school early.



See Table 55, Appendix B

Having a dependent at an early age was also related to self-rating of health. Female young adults who had a dependent before they were 20 years old were almost twice as likely to rate their health as only fair or poor than were female young adults with no dependents (17% versus 9%). Conversely, those with dependents were much less likely to rate their health as excellent (4% versus 26%) than were those with no dependents (Somer's d = -.31***).

Female young adults with at least one dependent were more likely to rate their own overall health as "fair" or "poor" and much less likely to rate their own health as "excellent" than those with no dependent.



See Table 56, Appendix B

Mothers' education, young adults' early school leaving status, young adults' early child bearing status and young adults' experience of chronic illness were entered into a regression analysis. As might be expected, the young adults' experience of chronic illness was the strongest statistical predictor of how they rated their overall health. Interestingly, mother's educational attainment remained a strong predictor of young adults' self-rating of overall health as did early child bearing, though to a lesser degree.

Young adults' experience of chronic illness and mothers' educational attainment are the strongest statistical predictors of young adults' self-rating of overall health.

	Beta
Mother's educational attainment	.15***
Early child bearing	-.08**
Early school leaving	-.05
Experience of chronic illness	-.20***

R = .29***

YOUNG ADULTS' HEALTH SERVICE UTILIZATION DATA

Examination of the young adults' health service utilization data revealed that the most significant differences between groups of young adults were between those who had dependents and those who did not. Though a number of other factors were related to young adults' health service utilization at the bivariate level, most notably early school leaving and current attachment to either school or labour force (see Appendix B, Tables 58 to 70), regression analyses with these variables showed that differences in health service utilization are largely determined by having a child. As other FMP reports have indicated, early child bearing by young adults in the study is inexorably linked to their leaving school early and to the process of social exclusion (see FMP report on early school leavers).

Number of GP visits

On average, young women who had a dependent before the age of 20 saw their GP's 78 times between 1989 and 1999. In comparison, young women who did not have dependents, had an average of 38 GP visits during the same time period (t = -6.52***). At least some of this difference is likely due to the pre- and post-natal care received by the young adults who had dependents.

Similar results were obtained for number of specialist visits. Young women with dependents had an average of 20 specialist visits compared to an average of 9 specialist visits for young women with no dependents (t = -4.17***).

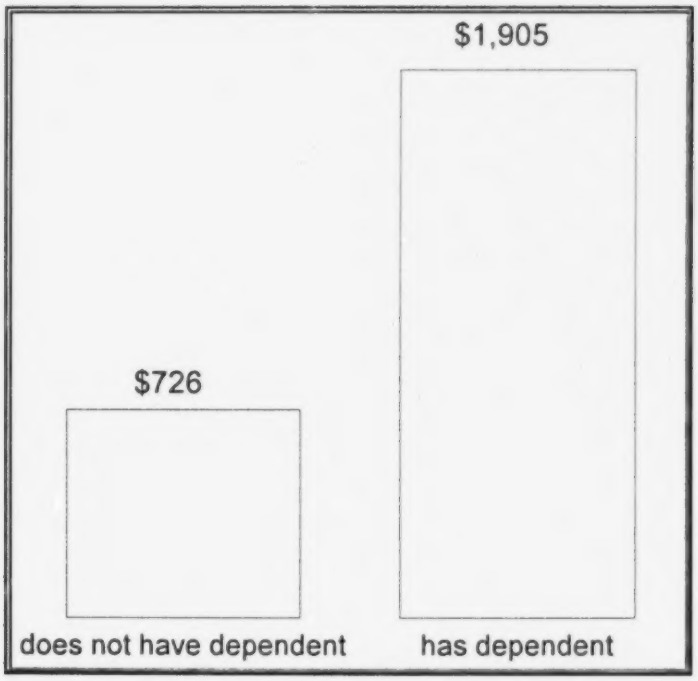
Young women who had at least one dependent by the age of 20 had a much higher average number of GP visits than those who had no dependents.

Amount paid to GP's

As was the case with number of GP visits, average amounts paid to GP's were also higher for young mothers. For young women with dependents, amounts paid to GP's averaged $1,905 compared to $726 for young women with no dependents (t = -9.87***).

Similarly, average amounts paid to specialist were also higher for female young adults with dependents. For female young adults with dependents, amounts paid to specialists averaged $1,162 compared to $440 for female young adults with no dependents (t = -5.16***).

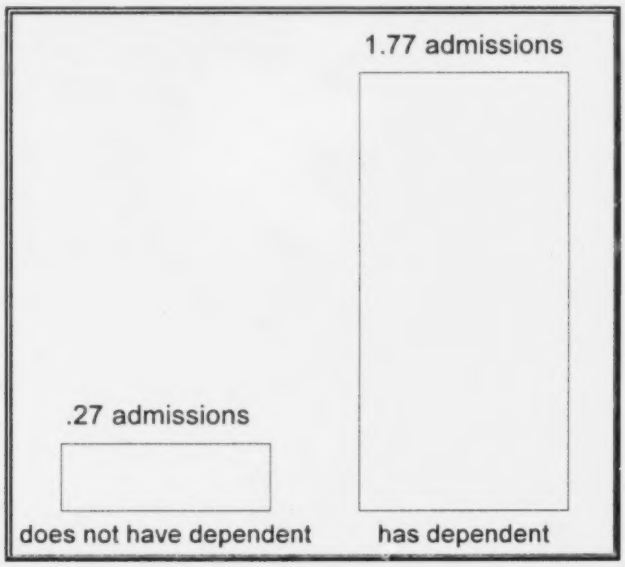
Not surprisingly, the average amount paid to GP's was also higher among those female young adults who had a dependent before the age of 20.



Number of in-patient hospital admissions

Finally, as was the case with the other health service utilization variables, the number of in-patient hospital admissions was also significantly higher for female young adults with dependents. On average, female young adults with dependents had 1.77 in-patients admissions compared to .27 in-patient admissions for female young adults with no dependents ($t = -7.20^{***}$). At least some of this difference is likely due to the fact that young adults with dependents would have been hospitalized for the birth(s) of their child(ren).

Female young adults who had a dependent before the age of 20 were much more likely to have had at least one in-patient hospital admission compared to those without dependents.



For each of the health service utilization variables where significant results were found at the bivariate level, a regression analysis was conducted where young adults' experience chronic illness, early child bearing status and early school leaving status were entered as predictors. As might be expected, the young adults' experience of chronic illness was a significant predictor of some of the health service utilization variables, most notably, the number of specialist visits. However, having a child was, by far, the strongest statistical predictor of the young adults' number of GP visits, amounts paid to GP's, and number of in-patient hospital admissions, even when controlling for the presence of chronic illness.

Early child bearing is the strongest statistical predictor of young adults' health service utilization

	Beta			
	Early school leaving	**Experience of chronic illness**	**Early child bearing**	**R**
# of GP visits	.08	.22***	.32***	.42***
Amount paid to GP's	.10*	.18***	.44***	.53***
# of specialist visits	-.16**	.31***	.26***	.38***
Amount paid to specialists	-.12*	.30***	.30***	.39***
# of in-patient hospital admissions	-.04	.15***	.43***	.44***

Summary of Key Points

Findings from the FMP illustrate some important points pertaining to the connection among family structure, poverty, and a variety of health indicators. The longitudinal data from the FMP offer a unique opportunity to examine the reality of life for the women and children/young adults involved, exploring the relationship of several indicators of their personal health to a variety of socio-economic factors and situations.

Mothers

Data from the FMP indicate that the main predictor of mothers' health service utilization is the extent of poverty experienced over the course of the 20 year study. The strongest predictor of self-reported health is mothers' education.

- While smoking was most prevalent in poorer households, it was also correlated with low levels of education and the experience of lone parenting among mothers.

- There is a tendency toward lower educational achievement and a stronger "conservative" attitude about the roles of mothers among those living below the poverty line. This group was less likely to consume alcohol on a regular basis than were those in the group with higher education and less experience of poverty.

- The experience of chronic illness was much more prevalent among mothers who had experienced long-term poverty.

- The self-rating of overall health index reveals that those mothers who had ever experienced poverty were far less likely to rate their own health as excellent than were those who had never experienced poverty. Concomitantly, those with relatively low levels of education were much more likely to indicate that their health was fair or poor than were those with higher education.

- The strongest predictor of number of in-patient admissions, as well as number of visits and amounts paid to GP's, is poverty. Among those who had ever experienced poverty, the average number of

visits to a GP was higher than among those who reported never having lived in poverty, as were the amounts paid to GP's and number of in-patient admissions.

- Mothers with very low initial education had a higher number of GP visits than did those with higher education. For those with very low initial education, the paid-to-GP dollar figure is more than twice that for those with higher education.

- Those who had lower levels of education had higher numbers of in-patient admissions when compared to those with higher education.

- Finally, we find that lone parents had a higher number of visits to a general health practitioner than mothers who were continuously married.

Young Adults

The strongest predictor of health service utilization among young adults in the FMP was having a dependent child. The strongest predictor of smoking was whether or not the young adult had left the school system before completing grade 12. It is also important to note that the education level of mothers is linked to their sons'/daughters' self-rating of overall health.

- Young adults who left school early were much more likely to smoke every day than those who did not leave school early.

- Young adults who experienced long-term poverty were much more likely to smoke every day than those who had never experienced poverty.

- Approximately half of the young adults whose mothers had not been continuously married throughout the 20 years of the study smoked every day.

- Young adults who had left school early were twice as likely to rate their own health as fair or poor than were those who had not left school early. As well, those in the early-school leaving group were

less likely to rate their health as excellent than were those who had not left school early.

- Young adults whose mothers had a relatively higher level of education at the time of the 20 year data collection were three times more likely to rate their own health as excellent than were those whose mothers had lower educational attainment.

- Young females with no dependent were more than 6 times as likely to rate their own health as excellent than were the young females with at least one dependent.

- Young females with at least one dependent were considerably less likely to use alcohol on a regular basis than were young females with no dependents.

- Not surprisingly, given needs related to pre- and post-natal care, female young adults with a dependent had a much higher average number of GP visits than those with no dependents. Correspondingly, the average amount paid to GP's was also higher among female young adults who had a dependent.

- Given their need for hospitalization for their child(ren)'s birth, female young adults with a dependent were also much more likely to have had at least one in-patient admission.

Discussion

To provide a context for the FMP data, it is useful to make comparisons with provincial and Canadian statistics relating to the health of women and their families.

PROVINCIAL/CANADIAN HEALTH-RELATED STATISTICAL OVERVIEW

In relation to the discussion above examining social determinants and indicators of health, it is useful to outline the context of health and illness for women and their children in Canada and in Nova Scotia. Three documents have provided some major highlights: The Nova Scotia Advisory Council on the Status of Women's "Money Matters" and "Family Matters" statistical reports (McFadyen 2000, 2001), and the ACPH's "Second Report on the Health of Canadians" (1999).

Canadian Overview

The ACPH draws upon many recent studies of health and related matters, including the National Population Health Survey (1996-97) and the National Longitudinal Survey of Children and Youth (1996).

Self-Rated Health: Drawing upon the National Population Health Survey(NPHS) of 1996-97, the ACPH report indicates that women are generally less likely than men to rate their own health as excellent or very good, and that the incidence of poorer rated health ratings increases with age. Higher self-ratings of health are also clearly linked to higher income.

Psychological Well-Being: It is well documented that physical and mental health are closely linked, and that both are important to the well-being of the individual and society. The NPHS clearly illustrates that there is a link between income and all measures of psychological well-being. While this report focuses mainly upon indicators of physical health, another report of the FMP will examine findings related to the psychological well-being of mothers and young adults involved in the study.

Chronic Diseases: It is significant for this report that, among those chronic diseases reported in the NPHS, diabetes prevalence was not significantly different between men and women, but that it was "significantly higher among Canadians with low incomes". (ACPH, 1999: 17)

Tobacco/Alcohol Use: The ACPH report indicates that, while smoking rates have shown overall reduction in the Canadian population, "three groups - young women and women and men with low-income status - lag behind" (p. 119) in reductions. The highest rates of smoking were reported by men in the NPHS (40%) and women (36%) in the lowest income bracket, while those in the highest income bracket had significantly lower rates (16% and 13% respectively, for men and women). "The highest rates of smoking in Canada are reported by Aboriginal people, about double the overall rate in the Canadian population as a whole." (p. 119)

According to the report, regular alcohol use "rose steadily with increases in income. Men and women with higher incomes also tended to be heavier drinkers." (p. 121) "In Nova Scotia, 21% of Grade 7 students and 58% of Grade 9 students (the vast majority of whom are below the legal drinking age) reported drinking alcohol in the previous year." (p. 122)

Changing Family Structures: As we have seen in other reports of the FMP, changing family structure relates to, among other factors, the employment and education experiences of the adults. In Canada, the number of lone parent families has increased dramatically in recent years. As indicated in the ACPH report, child development and health outcomes are also significantly impacted as family structures change (p. 87). The need for supported parenting, high quality child care, and integrated service delivery increases in the midst of these and other changes in society and at the family level.

Poverty: As poverty increases, the need for family supports, including health care, increases. Most importantly, in the climate of recent policy initiatives aimed at eliminating child poverty, it is essential to return the unit of analysis to the family level - and to remember that children are poor because their families are poor. According to the ACPH report, "children who went hungry (as reported in the 1996

National Longitudinal Survey of Children and Youth) were more likely to live in large cities, to live in lone-parent families and to live in families that depend on social assistance." (p. 85)

Health Service Access and Utilization: While it appears that most Canadians have access to a general practitioner, there remain "persistent language and cultural barriers to the provision and/or utilization of services in certain circumstances" (ACPH, 1999: 145). There are also reported gender differences in utilization of preventive health services. Again, we see that income is an important predictor of utilization, with those in lower income brackets reporting "somewhat more frequent visits to a physician" (p. 146). While access is "guaranteed" in systems of universal-access health care, it is important to note that those in lower income segments of the population regard access to health care as one of the most important primary care issues.

Provincial Overview

In Nova Scotia, the NS Advisory Council on the Status of Women provides analyses on a variety of aspects of the lives of women in this province. Of particular note here are the statistical analyses of several of the socio-economic indicators of health. Education and employment-related statistics are drawn upon due to their relationship to the variables examined in the FMP data sets on self-reported health and health system utilization of mothers and young adults in the study over the 20-year data collection period.

Income: In Nova Scotia, the average family income of households headed by a female lone parent is lower than that for all other family types.

The average family income by family structure in NS in 1995:

husband/wife family (n=210,000)	$50,190
male lone parent family (n=1,180)	$33,782
female lone parent family (n=16,140)	$22,336

(McFadyen, 2000: 7).

While the average individual incomes are not greatly differentiated by race/ethnicity, the incidence of low income is higher for Black women and all racially visible women:

45.6% of Black women have low income
39.2% of all racially visible women have low income
20.5% of all women have low income
(McFadyen, 2000: 12).

Aboriginal women earn considerably less than all women:

54.2% of aboriginal women on-reserve and
52.9% of aboriginal women off-reserve earn less than $10,000/year
(McFadyen, 2000: 13).

Similar incidences of low income are found among those women who are recent immigrants and those who have some kind of disability. Women who were considered relatively recent immigrants (between 1991-96) earned an average of $18,849/year (McFadyen, 2000: 14), and 59% of women with a disability earned less than $15,000/year (McFadyen, 2000: 15).

Occupational Distribution, Education and Related Incomes: Many NS women are working in jobs that pay less than $10,000/year. Statistics on the annual earnings for all employees (men and women) in NS in 1995 indicate that 17% of all male workers and 5% of all female workers have jobs paying more than $45,000/year; and that 42.4% of all female workers and 27.2% of all male workers earned less than $10,000 in 1995. The average annual salary for all employed men in NS in 1995 was $26,701, while the average annual salary for all employed women in NS in 1995 was $16,322 (McFadyen, 2000: 10).

In addition to these earning differences, we see that women are still clustered in low-paying occupations. Approximately 51% of all full year/full time employed women in NS in 1995 had clerical/secretarial or sales/service jobs, which are amongst the lowest paying of all occupational categories (McFadyen, 2000: 17).

Finally, women still earn less than men across almost all occupational groups. For example, 79% of full time health workers are women, but women in these jobs earn only (on average) 48% of what men earn (McFadyen, 2001: 18). No matter what their education, women still earn less than men. On average, women earn 63-78% of what men with comparable levels of education are earning (McFadyen, 2000: 21).

Further discussion of the Canadian and provincial contexts within which FMP data is examined appears in other reports of the FMP.

FMP HEALTH-RELATED DATA OVERVIEW

In this section, it is useful to re-visit some of the major findings from other reports of the FMP. While some of these variables may not have been specifically examined as part of the health-related data set, they are drawn from other data in the 10- and 20-year questionnaires of mothers and young adults, and are known to be included as indicators and social determinants of health.

Education/Employment: Not surprisingly, lower educational achievement was significantly related to the marital status and age of the mothers who experienced poverty. As we see in other reports of the FMP:

> "Women who were single when their first child was born tended to start out with, and continued to have, lower levels of education than mothers who were married when their first child was born. These differences were, to a large extent, determined by differences in age. Mothers who were 19 years of age or under when their first child was born had low levels of education, regardless of whether they were single or married." (Dechman and Medjuck, 2001: 34)

Those mothers who started off at an educational disadvantage never attained levels of education or employment as high as those of mothers who started with a relative educational advantage.

Many participants did try to increase their human capital and reported valuing higher education. However, as we saw in the Family Mosaic's Employment Profiles of Mothers report (Dechman

and Medjuck, 2001: 9), "young mothers had particularly weak attachments to the labour force". In addition to this, "mothers who were single when their first child was born were more likely to have worked in service or labour positions" (Dechman and Medjuck, 2001: 17) – those sectors of the labour market well established to be characterized by low pay, high stress and a distinct lack of benefits, particularly for health care.

> "Mothers who were lone parents when their first child was born were more likely than other mothers to have been laid off or to have left jobs because of health problems. While there was little difference between continuously married and divorced mothers with respect to leaving or changing jobs, there were differences between these two groups and women who were single parents when their first child was born. Mothers who were single when they started parenting were more likely to change jobs for negative reasons such as being laid off or having health problems" (Dechman and Medjuck, 2001: 21).

FMP results also demonstrate that educational attainment is a primary filter for social assistance usage (Dechman, 2001b: 57).

Changing Family and Marital Status: Although some changes were reported on individual bases, overall, those mothers who were younger and not married at the time of the birth of their first child were most likely to experience economic poverty and poorer health.

Social Support and Lone-Parenting: It is important to note that, although stressful, young parents do speak of the positives of having children. However, it is reportedly more stressful to be a lone-parent mother for a variety of reasons.

> "While a few married mothers reported virtually no support for child-rearing, this situation was more prevalent in lone-parent families." (Dechman, 2000a: 27)

As we see through the FMP report on The Dynamics of Family Life (Dechman, 2000a), there are several situations in the lives of

women who were single when they had their first child that further serve to increase financial and other hardships:

> "Despite the additional support received from extended family and friends, mothers in one-parent families generally had less support for child-rearing than did mothers in two-parent families." (Dechman, 2000a: 46)

In cases where the lone mother was single (as opposed to being divorced) when her first child was born, we see that the father is less likely to have regular contact or to provide support payments (Dechman, 2000a: 46).

In a discussion of the costs of lone-parenting, while

> "both married and lone-parent mothers perceived themselves as assuming primary responsibility for the health or medical needs of their children, married mothers were more likely to say their husbands equally shared such responsibilities as rule setting, taking children to lessons and special events, working through problems, and helping with school work" (Dechman, 2000a: 46).

As noted above, the process of becoming a lone-parent family is likely to be associated with a change in residence for the mother and her children. A discussion of housing needs among the mothers in the FMP reveals that some families found times over the twenty years of the study when they could not secure what they considered to be acceptable housing.

The Impacts of Generational or Long-term Social Exclusion: As previously stated, the negative impacts of social exclusion and ill health are felt throughout the life course.

> "Youth who come to the position of needing support for inclusion are usually least able to draw on their parents because their parents themselves are often socially excluded. The most successful interventions are those that provide sustained support for children and youth, often in an alternative physical location that separates them from the

> school environment where they already have been ostracized (Dugger, 1998). Such alternative programming provides a context where young people are helped to develop a positive self concept and successful strategies for functioning within the larger society.
>
> If early interventions are unsuccessful in keeping young women engaged in the school system, later interventions become increasingly difficult. For example, one obstacle to educational upgrading identified by young mothers in both the FMP and other research is a reluctance to leave their children with alternate caregivers (Aber, Brooks-Gunn and Maynard, 1995: 61). Results from the FMP demonstrate that many teenage mothers have experienced abuse and/or violence in their own lives so it is not surprising they are nervous about having other people care for their children." (Dechman, 2001b: 51-52)

While we interviewed young adults in the FMP when they were approximately 20 years of age, many of the elements directly related to the current (and projected) health of these individuals had already been experienced over their 20 years of life, in relation to their family, friends and the school system. The needs of children change over time as they grow into young adults and these needs vary in relation to other factors, including gender, geographic location, ethnicity/culture and other linkages to or experiences of social inclusion/exclusion. Within the broad context of social policies addressing education, families, income, social assistance, housing, and employment, the changing needs of young people over time and within a variety of family structures must be acknowledged. As indicated in other literature and through the FMP, the ability of policy to invest in the healthy development of young people necessitates addressing a host of socio-economic inequities by further supporting parents and families. By accepting and sharing these responsibilities among a variety of government departments, other social agencies, and the community, the health of young adults will be benefitted throughout their lives.

As we have seen through examination of FMP data, there are numerous inter-related experiences that can be seen to have

contributed to increased health service utilization and poorer self-reported health among participants in this study, including:

- having lower levels of education;
- having "less successful" labour force experiences (in terms of income, stability and other associated benefits);
- being a single (as opposed to divorced) lone-parent mother;
- becoming a mother at an early age;
- the experience of a higher incidence and longer duration of social assistance usage, that is more common among lone-parent families and their children;
- being a young adult who has left the family home and/or the school system at an early age;
- being a young adult who has a dependent child; and
- having lower human capital through limited education and work experience.

Various policy implications of these and other findings are discussed in other reports of the FMP, and include, among others:

- new ways of structuring work – mix of caregiving and employment;
- emphasis on retaining young people in the school system until at least grade 12; and
- enhanced employment initiatives.

As analysis of data from the FMP, and other research, indicates, further research is required in some areas. However, the links between health and many socio-economic indicators is evident.

According to Townson and others, Canada has moved closer to achieving population health in that it has recognized the socio-economic

determinants of health. However, further work is required to meet the socio-economic needs of Canadians. Finally, while discussion of the various economic and monetary system changes may be best left to economists, it is clear that the discussion of the health of a population, whether women and children in Nova Scotia or some other group in another location, must continue to include an assessment of the relevant social indicators as provided in this report of the Family Mosaic Project.

As we have seen, it is now well recognized that a wide number of inter-related socio-economic factors are associated with the health of individuals, families, and populations. A host of government departments and services is charged with facilitating the development of human capital, and this process can occur to a greater or lesser extent depending upon the extent of inequity within the larger socio-economic context. Not all individuals or populations equally access opportunities to develop their human capital.

In efforts to improve population health, policy must continue to examine, and attempt to re-dress, inequities in a variety of socio-economic areas, including employment and education, but also early childhood development, psycho-social health, working conditions, violence in the home and community, and inequality based on racial/ethnic, gender and age differences.

Sources

ABER, J. LAWRENCE, JEANNE BROOKS-GUNN, AND REBECCA A. MAYNARD. (1995) "Effects of Welfare Reform on Teenage Parents and Their Children," *Critical Issues for Children and Youths*, Vol. 5, No. 2: 53-70.

ANNANDALE, ELLEN. (1998) The Sociology of Health and Medicine: A Critical Introduction. Cambridge: Polity Press.

DECHMAN, MARGARET K. and SHEVA MEDJUCK. (2001) The Family Mosaic. Employment Profiles of Mothers: A Longitudinal Study of Lone-Parent and Two-Parent Families. Halifax: Nova Scotia Department of Community Services. http://www.gov.ns.ca/coms/fm.htm.

DECHMAN, MARGARET K. (2001a) The Family Mosaic. Methodology Report: A Longitudinal Study of Lone-Parent and Two-Parent Families. Halifax: Nova Scotia Department of Community Services. http://www.gov.ns.ca/coms/fm.htm.

DECHMAN, MARGARET K. (2001b) The Family Mosaic. Social Exclusion and Social Assistance: A Longitudinal Study of Lone-Parent and Two-Parent Families. Halifax: Nova Scotia Department of Community Services. http://www.gov.ns.ca/coms/fm.htm.

DECHMAN, MARGARET K. (2000a) The Family Mosaic. The Dynamics of Family Life: A Longitudinal Study of Lone-Parent and Two-Parent Families. Halifax: Nova Scotia Department of Community Services. http://www.gov.ns.ca/coms/fm.htm.

DECHMAN, MARGARET K. (2000b) The Family Mosaic. Educational Profiles of Mothers: A Longitudinal Study of Lone-Parent and Two-Parent Families. Halifax: Nova Scotia Department of Community Services. http://www.gov.ns.ca/coms/fm.htm.

DECHMAN, MARGARET K. (1995) Women in Nova Scotia: A Statistical Handbook. Halifax: Nova Scotia Women's Directorate.

DENTON, MARGARET and VIVIENNE WALTERS. (1999) "Gender differences in structural and behavioral determinants of health: an analysis of the social production of health", *Social Science and Medicine* 48: 1221-1235.

DONNER, LISA (2002) Women, Income and Health in Manitoba: An Overview for Ideas and Action. Manitoba: Women's Health Clinic.

DUGGER, JANICE M. (1998) "An Evaluation of a Successful Alternative High School," *High School Journal*, Vol. 81, Issue 4: 218-229.

FEDERAL, PROVINCIAL AND TERRITORIAL ADVISORY COMMITTEE ON POPULATION HEALTH (ACPH). (1999) Toward a Healthy Future: Second Report on the Health of Canadians.

GUTTMAN, N., ZIMMERMAN, D.R. (2000) "Low-Income Mothers' Views on Breastfeeding," *Social Science Medicine* 50: 1457-1473.

HARDY, R.E., AHMED, N.U., HARGREAVES, M.K., et al. (2000) "Difficulty in Reaching Low-Income Women for Screening Mammography," *Journal of Health Care of the Poor and Underserved*, 11: 45-57.

KAGAN, SHARON. (1996) "America's Family Support Movement: A moment of Change," in Zigler, Kagan and Hall (eds.) Children, Families and Government, Cambridge: University of Cambridge Press.

KAUFERT, PATRICIA. (1999) Sex, Gender and Health. Cambridge University Press.

LOETHER, Herman J. and Donald G. MCTAVISH (1974). *Descriptive Statistics for Sociologists*. Toronto: Allyn and Bacon, Inc.

MACLEOD, U., ROSS, S., GILLIS, C., MCCONNACHIE, A., TWELVES, C., AND WATT, G.C. (2000) "Socio-Economic Deprivation and Stage of Disease at Presentation in Women with Breast Cancer," *Annals of Oncology* 11: 105-107.

McFADYEN, S. (2000) Money Matters: Women in Nova Scotia. Part 1 of a Statistical Series.

McFADYEN, S. (2001) Family Matters: Women in Nova Scotia. Part 2 of a Statistical Series.

MILLIGAN, R.A., PUGH, L.C., BRONNER, Y.L., SPATZ, D.L., BROWN, L.P. (2000) "Breastfeeding Duration Among Low Income Women," *Journal of Midwifery and Women's Health* 45: 246-252.

PEREZ, CLAUDIO AND BEAUDET, MARIE P. (1999) "The Health of Lone Mothers." Ottawa: Statistics Canada Health Reports, Autumn, vol. 11, no. 2.

RAPHAEL, DENNIS. (2001) Inequality is Bad for our Hearts: Why Low Income and Social Exclusion are Major Causes of Heart Disease in Canada. Toronto: North York Heart Health Network.

REUTTER, L., NEWFELD, A.; HARRISON, M.J. 2000. A Review of the Research on the Health of Low-Income Canadian Women. *Canadian Journal of Nursing Research* 32: 75-97.

TOWNSON, MONICA. 1999. Health and Wealth: How Social and Economic Factors Affect our Well Being. Ottawa: The Canadian Centre for Policy Alternatives.

Appendix A
Description of Health Variables

Self-Reported Health Variables

Smoking Status:

At the 20-year data collection both mothers and young adults were asked to report on their current smoking status. Respondents were asked whether they currently smoked:
- every day
- occasionally, or
- not at all

The "occasionally" and "not at all" categories were then collapsed given the small number of "occasionally" responses.

Alcohol Consumption:

At the 20-year data collection both mothers and young adults were asked to report on their alcohol consumption patterns. Respondents were asked to consider the past 12 months and indicate how often they consumed alcoholic beverages such as beer, wine, or liquor. The response choices were:

- every day
- 4-6 days a week
- 2-3 days a week
- once a week
- once or twice a month
- less than once a month, or
- never

Due to low numbers of responses in the first four categories listed above, these were collapsed into one category (once a week or more).

Self-Rating of Overall Health:

At the 20-year data collection both mothers and young adults were asked to rate their overall health in comparison to other people of the same age. A five-point Likert scale comprised the possible responses:

- excellent
- very good
- good
- fair
- poor

Due to low numbers of responses in the "poor" category, it was collapsed with the "fair" category.

Experience of acute and chronic illness:

Mothers were asked to provide an overview of their own and their child's experience with acute and chronic illness for two 10-year periods:

- At the 10-year data collection, mothers were asked to report from the initial data collection in 1978 to the present, and
- At the 20-year data collection, mothers were asked to report from the 10-year data collection to the present.

Specifically, mothers were asked if they (and their child) had experienced any "chronic or ongoing illnesses or medical problems" or "acute or severe short-term illnesses or medical problems" for the two periods specified above.

Health Service Utilization Data

The Health Service Utilization data obtained was analyzed in two ways at the bivariate level. Comparisons among/between means were used for the data in its continuous form (t-tests or ANOVAs). As a way of controlling for possible outlying values, the continuous data were categorized (see categories below). This also allowed for presentation of findings in cross-tabular form, as with the self-reported health data.

The continuous data were categorized as follows:

Number of GP visits:

Mothers	Young Adults
1-30	1-20
31-50	21-39
51-74	40 or more
75 or more	

Amounts paid to GP's

Mothers	Young Adults
$18-$552	$0-$330
$569-$952	$331-$558
$964-$1630	$560-$930
$1633 or more	$936 or more

Number of specialist visits

Mothers	Young Adults
0-4	0-2
5-9	3-8
10-20	9 or more
21 or more	

Amount paid to specialists

Mothers	Young Adults
$0-$206	$0-$81
$218-$674	$94-$243
$680-$1283	$245-$607
$$1293 or more	$615 or more

Number of In-Patient Hospitalizations

Mothers/Young Adults

0
1
2 or more

Appendix B

Bivariate Results
Mothers' Data

Tables Pertaining to Mother's Smoking Status

Table 1

Smoking Status By Mother's Initial Marital Status

	Initial Marital Status	
Smoking Status	Married	Single
Smokes Occasionally or Not at All	78%	53%
Smokes Everyday	22%	47%
Total Unweighted N	(307)	(129)

Phi = .23 ***

Table 2

Smoking Status By Mother's Overall Marital Status

	Overall Marital Status	
Smoking Status	Continually Married	Lone Parent at Some Time
Smokes Occasionally or Not at All	84%	58%
Smokes Everyday	16%	42%
Total Unweighted N	(219)	(248)

Phi = .29 ***

Table 3

Smoking Status By Mother's Marital Status History

	Mother's Marital Status History		
Smoking Status	Continually Married	Divorced	Not Married Initially
Smokes Occasionally or Not At All	84%	61%	53%
Smokes Everyday	16%	39%	47%
Total Unweighted N	(219)	(119)	(129)

Cramer's V = .30 ***

Table 4

Smoking Status By Mother's Initial Age

	Mother's Initial Age		
Smoking Status	14-19 years old	20-28 years old	29-35 years old
Smokes Occasionally or Not At All	57%	77%	85%
Smokes Everyday	43%	23%	15%
Total Unweighted N	(194)	(239)	(35)

Somer's d = -.18 ***

Table 5

Smoking Status By Mother's Overall Poverty Status

	Overall Poverty Status	
Smoking Status	Never Lived in Poverty	Lived in Poverty at Some Time
Smokes Occasionally or Not at All	79%	56%
Smokes Everyday	21%	44%
Total Unweighted N	(255)	(137)

Phi = .24 ***

Table 6

Smoking Status By Extent of Poverty

Smoking Status	Extent of Poverty: Never Lived in Poverty	Living in Poverty when Child was 10 *or* 20 years old	Living in Poverty when Child was 10 *and* 20 years old
Smokes Occasionally or Not At All	79%	63%	38%
Smokes Everyday	21%	37%	62%
Total Unweighted N	(255)	(91)	(46)

Somer's d = .24 ***

Table 7

Smoking Status By Mother's Initial Level of Education

Smoking Status	Mother's Initial Level of Education: Grade 9 or Less	Grade 10 or 11	High School Graduate +
Smokes Occasionally or Not at All	43%	64%	84%
Smokes Everyday	57%	36%	16%
Total Unweighted N	(76)	(128)	(203)

Somer's d = -.26 ***

Table 8

Smoking Status By Mother's Level of Education in 1999

	Mother's Level of Education in 1999			
Smoking Status	Grade 9 or Less	Grade 10 or 11	High School Graduate	Some Post Secondary +
Smokes Occasionally or Not at All	32%	54%	68%	83%
Smokes Everyday	68%	46%	32%	17%
Total Unweighted N	(46)	(74)	(100)	(244)

Somer's d = -.25 ***

Tables Pertaining to Mothers' Alcohol Usage

Table 9

Alcohol Use By Mother's Initial Age

	Mother's Initial Age		
Alcohol Use	14-19 years old	20-28 years old	29-35 years old
Never	23%	19%	16%
Less than Once a Month	40%	34%	20%
One to Two Times a Month	23%	24%	44%
Once a Week or More	14%	24%	20%
Total Unweighted N	(193)	(239)	(35)

Somer's d = .13 ***

Table 10

Alcohol Use By Overall Poverty Status

Alcohol Use	Overall Poverty Status: Never Lived In Poverty	Overall Poverty Status: Lived in Poverty at Some Time
Never	17%	26%
Less than Once a Month	33%	45%
One to Two Times a Month	27%	20%
Once a Week or More	23%	9%
Total Unweighted N	(255)	(136)

Somer's d = -.24 ***

Table 11

Alcohol Use By Extent of Poverty

Alcohol Use	Extent of Poverty: Never Lived in Poverty	Extent of Poverty: Living in Poverty When Child was 10 *or* 20	Extent of Poverty: Living in Poverty When Child was 10 *and* 20
Never	17%	19%	43%
Less than Once a Month	33%	47%	39%
One to Two Times a Month	27%	23%	14%
Once a Week or More	23%	11%	4%
Total Unweighted N	(255)	(90)	(46)

Somer's d = -.25 ***

Table 12

Alcohol Use By Mother's Initial Level of Education

Alcohol Use	Mother's Initial Level of Education: Grade 9 or Less	Grade 10 or 11	High School Graduate +
Never	36%	23%	14%
Less than Once a Month	34%	37%	30%
One to Two Times a Month	15%	25%	29%
Once a Week or More	15%	15%	27%
Total Unweighted N	(76)	(127)	(203)

Somer's d = .23 ***

Table 13

Alcohol Use By Mother's Level of Education in 1999

Alcohol Use	Mother's Level of Education in 1999: Grade 9 or Less	Grade 10 or 11	High School Graduate	Some Post Secondary +
Never	28%	35%	22%	14%
Less than Once a Month	42%	33%	39%	31%
One to Two Times a Month	16%	19%	27%	28%
Once a Week or More	14%	14%	12%	26%
Total Unweighted N	(46)	(74)	(99)	(244)

Somer's d = .21 ***

Table 14

Alcohol Use By Mother's Attitudes Towards Employment

Alcohol Use	Attitudes Towards Employment: Conservative	Attitudes Towards Employment: Liberal
Never	25%	14%
Less than Once a Month	35%	35%
One to Two Times a Month	25%	23%
Once a Week or More	14%	28%
Total Unweighted N	(228)	(170)

Somer's d = .19 ***

Tables Pertaining to Mother's Self- Rating of Health

Table 15

Self-Rating of Health By Mother's Initial Age

Self-Rating of Health	Mother's Initial Age: 14-19 years old	20-28 years old	29-35 years old
Fair or Poor	12%	9%	8%
Good	31%	27%	22%
Very Good	43%	42%	41%
Excellent	14%	22%	29%
Total Unweighted N	(210)	(251)	(36)

Somer's d = .11 **

Table 16

Self-Rating of Health By Overall Poverty Status

	Overall Poverty Status	
Self-Rating of Health	Never Lived In Poverty	Lived in Poverty at Some Time
Fair or Poor	8%	15%
Good	25%	39%
Very Good	43%	36%
Excellent	25%	9%
Total Unweighted N	(255)	(137)

Somer's d = -.28 ***

Table 17

Self-Rating of Health By Extent of Poverty

	Extent of Poverty		
Self-Rating of Health	Never Lived in Poverty	Living in Poverty When Child was 10 *or* 20	Living in Poverty When Child was 10 *and* 20
Fair or Poor	8%	10%	28%
Good	25%	41%	35%
Very Good	43%	40%	28%
Excellent	25%	9%	9%
Total Unweighted N	(255)	(91)	(46)

Somer's d = -.27 ***

Table 18

Self-Rating of Health By Mother's Initial Level of Education

Self-Rating of Health	Mother's Initial Level of Education: Grade 9 or Less	Grade 10 or 11	High School Graduate +
Fair or Poor	16%	8%	8%
Good	35%	32%	24%
Very Good	37%	46%	42%
Excellent	13%	14%	26%
Total Unweighted N	(84)	(134)	(213)

Somer's d = .16 ***

Table 19

Self-Rating of Health By Mother's Level of Education in 1999

Self-Rating of Health	Mother's Level of Education in 1999: Grade 9 or Less	Grade 10 or 11	High School Graduate	Some Post Secondary +
Fair or Poor	30%	9%	12%	7%
Good	33%	28%	34%	24%
Very Good	27%	51%	34%	45%
Excellent	10%	12%	20%	24%
Total Unweighted N	(51)	(79)	(106)	(254)

Somer's d = .17 ***

Tables Pertaining to Mother's Self-Reported Experience of Chronic and Acute Illness

Table 20

Number of Acute Illnesses Self-Reported in 1999 By Mother's Overall Poverty Status

	Overall Poverty Status	
Number of Acute Illnesses Self-Reported in 1999	Never Lived in Poverty	Lived in Poverty at Some Time
One Acute Illness	82%	64%
More than One Acute Illness	18%	36%
Total Unweighted N	(83)	(49)

Phi = .19 **

Table 21

Experience of Chronic Illness Self-Reported in 1999 By Extent of Poverty

	Extent of Poverty		
Experience of Chronic Illness Self-Reported in 1999	Never Lived in Poverty	Living in Poverty when Child was 10 *or* 20 years old	Living in Poverty when Child was 10 *and* 20 years old
No Chronic Illness	62%	58%	41%
Chronic Illness	38%	42%	59%
Total Unweighted N	(255)	(91)	(46)

Somer's d = .10 **

Table 22

Overall Experience of Chronic Illness Self-Reported By Extent of Poverty

Overall Experience of Chronic Illness Self-Reported	Extent of Poverty: Never Lived in Poverty	Extent of Poverty: Living in Poverty when Child was 10 *or* 20 years old	Extent of Poverty: Living in Poverty when Child was 10 *and* 20 years old
No Chronic Illness	54%	50%	30%
Chronic Illness	46%	50%	70%
Total Unweighted N	(255)	(91)	(46)

Somer's d = .10 **

Table 23

Number of Acute Illnesses Self-Reported in 1999 By Extent of Poverty

Number of Acute Illnesses Self-Reported in 1999	Extent of Poverty: Never Lived in Poverty	Extent of Poverty: Living in Poverty when Child was 10 *or* 20 years old	Extent of Poverty: Living in Poverty when Child was 10 *and* 20 years old
One Acute Illness	82%	75%	42%
More than One Acute Illness	18%	25%	58%
Total Unweighted N	(83)	(30)	(19)

Somer's d = .20 ***

Tables Pertaining to Mothers' Health Care Utilization (1989-1999)

Table 24

Number of GP Visits by Overall Marital Status

	Overall Marital Status	
Number of GP Visits	Continuously Married	Lone Parent at Some Time
1-30	26%	22%
31-50	35%	17%
51-74	21%	31%
75 or more	18%	30%
Total Unweighted N	(78)	(64)

Somer's d = .21 **

Table 25

Number of GP Visits By Mother's Initial Age

	Mother's Initial Age		
Number of GP Visits	14-19 years old	20-28 years old	29-35 years old
1-30	16%	29%	23%
31-50	22%	29%	30%
51-74	27%	25%	23%
75 or more	35%	17%	23%
Total Unweighted N	(56)	(73)	(13)

Somer's d = -.17 **

Table 26

Number of GP Visits By Overall Poverty Status

Number of GP Visits	Overall Poverty Status: Never Lived In Poverty	Overall Poverty Status: Lived in Poverty at Some Time
1-30	27%	17%
31-50	26%	23%
51-74	26%	18%
75 or More	21%	42%
Total Unweighted N	(84)	(36)

Somer's d = .23 **

Table 27

Number of GP Visits By Mother's Initial Level of Education

Number of GP Visits	Mother's Initial Level of Education: Grade 9 or Less	Grade 10 or 11	High School Graduate +
1-30	3%	20%	34%
31-50	20%	32%	28%
51-74	40%	32%	20%
75 or More	37%	16%	18%
Total Unweighted N	(19)	(40)	(58)

Somer's d = -.24 ***

Table 28

Number of GP Visits By Initial Level of Education (dichotomous)

	Initial Level of Education	
Number of GP Visits	< Grade 12	Grade 12 +
1-30	16%	34%
31-50	26%	28%
51-74	34%	20%
75 or More	24%	18%
Total Unweighted N	(59)	(58)

Somer's d = -.21 **

Table 29

Amounts Paid to GP's by Overall Marital Status

	Overall Marital Status	
Amounts Paid to GP's	Continuously Married	Lone Parent at Some Time
$18 to $552	32%	20%
$569 to $952	29%	17%
$964 to $1630	21%	32%
$1633 or more	18%	30%
Total Unweighted N	(78)	(64)

Somer's d = .24 ***

Table 30

Amounts Paid to GP's By Overall Poverty Status

Amounts Paid to GP's	Overall Poverty Status: Never Lived In Poverty	Overall Poverty Status: Lived in Poverty at Some Time
$18 to $552	32%	14%
$569 to $952	23%	22%
$964 to $1630	25%	24%
$1633 or More	20%	41%
Total Unweighted N	(84)	(36)

Somer's d = .28 ***

Table 31

Amounts Paid to GP's By Mother's Initial Level of Education

Amounts Paid to GP's	Mother's Initial Level of Education: Grade 9 or Less	Grade 10 or 11	High School Graduate +
$18 to $552	3%	18%	40%
$569 to $952	20%	29%	22%
$964 to $1630	30%	42%	18%
$1633 or More	47%	11%	20%
Total Unweighted N	(19)	(40)	(58)

Somer's d = -.28 ***

Table 32

Amounts Paid to GP's By Initial Level of Education (dichotomous)

	Initial Level of Education	
Amounts Paid to GP's	< Grade 12	Grade 12 +
$18 to $552	14%	40%
$569 to $952	25%	22%
$964 to $1630	37%	18%
$1633 or More	24%	20%
Total Unweighted N	(59)	(58)

Somer's d = -.26 ***

Table 33

Number of Specialist Visits By Overall Poverty Status

	Overall Poverty Status	
Number of Specialist Visits	Never Lived In Poverty	Lived in Poverty at Some Time
0-4	29%	10%
5-9	24%	23%
10-20	21%	29%
21 or more	25%	38%
Total Unweighted N	(84)	(36)

Somer's d = .26 ***

Table 34

Amounts Paid to Specialist By Overall Poverty Status

	Overall Poverty Status	
Amounts Paid to Specialists	Never Lived In Poverty	Lived in Poverty at Some Time
$0 to $206	32%	7%
$218 to $674	23%	23%
$680 to $1283	22%	25%
$1293 or More	23%	45%
Total Unweighted N	(84)	(36)

Somer's d = .35 ***

Table 35

Amounts Paid to Specialists By Mother's Initial Level of Education

	Mother's Initial Level of Education		
Amounts Paid to Specialists	Grade 9 or Less	Grade 10 or 11	High School Graduate +
$0 to $206	7%	25%	31%
$218 to $674	10%	35%	26%
$680 to $1283	47%	13%	22%
$1293 or More	37%	28%	22%
Total Unweighted N	(19)	(40)	(58)

Somer's d = -.18 **

Table 36

Number of In-Patient Admissions by Overall Marital Status

Number of In-Patient Admissions	Overall Marital Status: Continuously Married	Overall Marital Status: Lone Parent at Some Time
0	68%	50%
1	20%	24%
2 or more	12%	26%
Total Unweighted N	(78)	(64)

Somer's d = .21 ***

Table 37

Number of In-Patient Admissions By Marital Status History

Number of In-Patient Admissions	Marital Status History: Continuously Married	Marital Status History: Divorced	Marital Status History: Not Married Initially
0	68%	56%	40%
1	20%	25%	23%
2 or more	12%	19%	36%
Total Unweighted N	(78)	(39)	(25)

Somer's d = -.18 **

Table 38

Number of In-Patient Admissions By Mother's Initial Age

Number of In-Patient Admissions	Mother's Initial Age: 14-19 years old	20-28 years old	29-35 years old
0	38%	42%	46%
1	18%	42%	24%
2 or more	44%	17%	30%
Total Unweighted N	(56)	(73)	(13)

Somer's d = -.30 ***

Table 39

Number of In-Patient Admissions By Overall Poverty Status

Number of In-Patient Admissions	Overall Poverty Status: Never Lived In Poverty	Lived in Poverty at Some Time
0	69%	28%
1	19%	35%
2 or more	12%	37%
Total Unweighted N	(84)	(36)

Somer's d = .43 ***

Table 40

Number of In-Patient Admissions By Mother's Initial Level of Education

Number of In-Patient Admissions	Mother's Initial Level of Education: Grade 9 or Less	Grade 10 or 11	High School Graduate +
0	23%	64%	74%
1	27%	21%	20%
2 or more	50%	15%	6%
Total Unweighted N	(19)	(40)	(58)

Somer's d = -.28 ***

Table 41

Number of In-Patient Admissions By Initial Level of Education (dichotomous)

Number of In-Patient Admissions	Initial Level of Education: < Grade 12	Grade 12 +
0	50%	74%
1	23%	20%
2 or more	27%	6%
Total Unweighted N	(59)	(58)

Somer's d = -.28 ***

Table 42

Number of In-Patient Admissions By Mother's Level of Education in 1999

Number of In-Patient Admissions	Mother's Level of Education in 1999			
	Grade 9 or Less	Grade 10 or 11	High School Graduate	Some Post Secondary +
0	10%	61%	44%	77%
1	45%	16%	31%	15%
2 or more	45%	23%	25%	9%
Total Unweighted N	(11)	(25)	(38)	(67)

Somer's d = -.28 ***

Table 43

Number of Out-Patient Admissions By Mother's Initial Level of Education

Number of Out-Patient Admissions	Mother's Initial Level of Education		
	Grade 9 or Less	Grade 10 or 11	High School Graduate +
0	28%	42%	59%
1	33%	37%	23%
2 or more	39%	21%	19%
Total Unweighted N	(19)	(40)	(58)

Somer's d = -.18 ***

Table 44

Number of Out-Patient Admissions By Initial Level of Education (dichotomous)

Number of Out-Patient Admissions	Initial Level of Education: < Grade 12	Initial Level of Education: Grade 12 +
0	38%	59%
1	36%	23%
2 or more	26%	19%
Total Unweighted N	(59)	(58)

Somer's d = -.20 **

Young Adults' Data

Tables Pertaining to Young Adults' Smoking Status

Table 45

Smoking Status By Early School Leaving

Smoking Status	Left School Before Completing Grade 12? No	Yes
Smokes Occasionally or Not at All	65%	30%
Smokes Everyday	35%	70%
Total Unweighted N	(188)	(72)

Phi = .29 ***

Table 46

Smoking Status By Early Home Leaving

Smoking Status	Left Home Before Age 18? No	Yes
Smokes Occasionally or Not at All	61%	31%
Smokes Everyday	39%	69%
Total Unweighted N	(202)	(36)

Phi = .18 ***

Table 47

Smoking Status By Current School Involvement

	Current School Involvement	
Smoking Status	Not in School	In School
Smokes Occasionally or Not at All	41%	76%
Smokes Everyday	59%	24%
Total Unweighted N	(155)	(95)

Phi = -.36 ***

Table 48

Smoking Status By Current Employment Status

	Current Employment Status	
Smoking Status	Not Working	Working
Smokes Occasionally or Not at All	63%	54%
Smokes Everyday	37%	46%
Total Unweighted N	(109)	(151)

Phi = .08 (sig = .04)

Table 49

Smoking Status By Mother's Overall Marital Status

	Mother's Overall Marital Status	
Smoking Status	Continuously Married	Not Continuously Married
Smokes Occasionally or Not at All	69%	45%
Smokes Everyday	31%	55%
Total Unweighted N	(102)	(156)

Phi = .24 ***

Table 50

Smoking Status By Extent of Family Poverty

Smoking Status	Extent of Family Poverty: No Poverty	Poor at Either 10 or 20 year interview	Poor at both 10 and 20 year interview
Smokes Occasionally or Not At All	63%	46%	23%
Smokes Everyday	37%	54%	77%
otal Unweighted N	(132)	(50)	(25)

Somer's d = .23 ***

Table 51

Smoking Status By Early Child Bearing Status of Young Adult (females only)

Smoking Status	Does Young Adult have Dependent? No	Yes
Smokes Occasionally or Not at All	62%	35%
Smokes Everyday	38%	65%
Total Unweighted N	(111)	(28)

Phi = .19 ** (not significant (p > .05) in unweighted analysis)

Tables Pertaining to Young Persons' Alcohol Usage

Table 52

Alcohol Use By Early Child Bearing Status (females only)

	Does Young Adult have dependent?	
Alcohol Use	No	Yes
Never	9%	9%
Less than Once a Month	23%	40%
One to Two Times a Month	40%	43%
Once a Week or More	28%	9%
Total Unweighted N	(197)	(30)

Somer's d = -.25 **

Table 53

Alcohol Use By Extent of Family Poverty

	Did Family Experience Extended Poverty?	
Alcohol Use	No	Yes
Never	9%	3%
Less than Once a Month	15%	31%
One to Two Times a Month	39%	53%
Once a Week or More	37%	13%
Total Unweighted N	(301)	(39)

Somer's d = -.23 **

Tables Pertaining to Young Adults' Self- Rating of Health

Table 54

Self-Rating of Health By Young Adult's Current Activity/Involvement

Self-Rating of Health	Young Adult's Current Activity/Involvement: Neither in school nor working	Either in school or working	Both in school and working
Fair or Poor	10%	11%	5%
Good	24%	25%	17%
Very Good	45%	44%	46%
Excellent	21%	21%	32%
Total Unweighted N	(72)	(244)	(95)

Somer's d = .14 ***

Table 55

Self-Rating of Health By Early School Leaving

Self-Rating of Health	Left School Before Completing Grade 12? No	Yes
Fair or Poor	8%	16%
Good	22%	29%
Very Good	45%	39%
Excellent	26%	16%
Total Unweighted N	(345)	(83)

Somer's d = -.20 ***

Table 56

Self-Rating of Health By Early Child Bearing Status (females only)

Self-Rating of Health	Does Young Adult have Dependent? No	Yes
Fair or Poor	9%	17%
Good	22%	34%
Very Good	44%	45%
Excellent	26%	4%
Total Unweighted N	(197)	(30)

Somer's d = -.31 ***

Table 57

Self-Rating of Health By Mother's Level of Education in 1999

Self-Rating of Health	Mother's Level of Education in 1999: Grade 9 or Less	Grade 10 or 11	High School Graduate	Some Post Secondary +
Fair or Poor	7%	10%	10%	8%
Good	42%	28%	36%	16%
Very Good	41%	44%	40%	46%
Excellent	10%	18%	13%	30%
Total Unweighted N	(39)	(68)	(84)	(228)

Somer's d = .21 ***

Tables Pertaining to Young Adults' Experience of Chronic Illness (reported by mother)

Table 58

Young Person's Experience of Chronic Illness (reported by mother in 1999) By Early Home Leaving

	Left Home Before Age 18?	
Experience of Chronic Illness in 1999	No	Yes
No Chronic Illness	63%	90%
Chronic Illness	37%	10%
Total Unweighted N	(344)	(38)

Somer's d = -.27 ***

Tables Pertaining to Young Adults' Health Care Utilization (1989-1999)

Table 59

Number of GP Visits by Current Educational Involvement

	Currently Going to School?	
Number of GP Visits	No	Yes
0-20	16%	43%
21-39	42%	30%
40+	43%	28%
Total Unweighted N	(48)	(85)

Somer's d = -.28 ***

Table 60

Number of GP Visits by Current Activity/Attachment

Number of GP Visits	Current Activity/Attachment: Neither in school nor working	Current Activity/Attachment: Either in school or working
0-20	11%	36%
21-39	47%	32%
40+	42%	31%
Total Unweighted N	(16)	(117)

Somer's d = -.24 **

Table 61

Number of GP Visits by Early School Leaving

Number of GP Visits	Left School Before Grade 12? No	Left School Before Grade 12? Yes
0-20	37%	11%
21-39	33%	36%
40+	30%	52%
Total Unweighted N	(112)	(21)

Somer's d = .32 ***

Table 62

Amounts Paid to GP's by Current Educational Involvement

	Currently in school?	
Amounts Paid to GP's	No	Yes
$0 to $330	12%	33%
$331 to $558	27%	26%
$560 to $903	29%	22%
$936 or more	32%	19%
Total Unweighted N	(48)	(85)

Somer's d = -.28 ***

Table 63

Amounts Paid to GP's by Current Activity/Attachment

	Current Activity/Attachment	
Amounts Paid to GP's	Neither in school nor working	Either in school or working
$0 to $330	11%	28%
$331 to $558	33%	26%
$560 to $903	8%	26%
$936 or more	47%	21%
Total Unweighted N	(16)	(117)

Somer's d = -.26 **

Table 64

Amounts Paid to GP's by Early School Leaving

Amounts Paid to GP's	Left School Before Completing Grade 12? No	Yes
$0 to $330	29%	11%
$331 to $558	27%	20%
$560 to $903	24%	24%
$936 or more	20%	44%
Total Unweighted N	(112)	(21)

Somer's d = .33 ***

Table 65

Number of In-Patient Admissions by Current Educational Involvement

Number of In-Patient Admissions	Currently in School? No	Yes
0	68%	85%
1	19%	11%
2 or more	13%	4%
Total Unweighted N	(48)	(85)

Somer's d = -.18 ***

Table 66

Number of In-Patient Admissions By Current Activity/Attachment

Number of In-Patient Admissions	Current Activity/Attachment: Neither in School nor Working	Current Activity/Attachment: Either in School or Working
0	58%	82%
1	25%	12%
2 or more	17%	6%
Total Unweighted N	(16)	(117)

Somer's d = -.24 **

Table 67

Number of In-Patient Admissions By Early School Leaving

Number of In-Patient Admissions	Left School Before Completing Grade 12? No	Left School Before Completing Grade 12? Yes
0	82%	60%
1	12%	26%
2 or more	6%	14%
Total Unweighted N	(112)	(21)

Somer's d = .22 **

Table 68

In-Patient Length of Stay By Current Activity/Attachment

In-Patient Length of Stay	Current Activity/Attachment: Neither in School nor Working	Current Activity/Attachment: Either in School or Working
0 days	58%	82%
1-5 days	25%	12%
6 days or more	17%	6%
Total Unweighted N	(16)	(117)

Somer's d = -.24 **

Table 69

In-Patient Length of Stay By Early School Leaving

In-Patient Length of Stay	Left School Before Completing Grade 12? No	Left School Before Completing Grade 12? Yes
0 days	82%	61%
1-5 days	11%	26%
6 days or more	7%	14%
Total Unweighted N	(112)	(21)

Somer's d = .22 **

Table 70

In-Patient Length of Stay By Current Educational Involvement

	Currently in School?	
In-Patient Length of Stay	No	Yes
0 days	68%	85%
1-5 days	20%	10%
6 days or more	12%	5%
Total Unweighted N	(48)	(85)

Somer's d = -.17 ***

Notes

1. The number excludes 26 of the original mother-child dyads because: the mother died, the child died, the child was adopted or the child was made a ward of the court before the time of the 10-year data collection.

2. Initial age refers to the age of the mother at the time her first child was born in 1978.

3. Poverty is defined as falling below Statistics Canada's low-income cutoffs.

4. Initial education refers to the educational attainment of the mother at the time her first child was born in 1978.

5. Final education refers to the educational attainment of the mother at the time of the 20-year data collection.

6. The findings reported for the Family Mosaic Project are based on weighted data. Weighting procedures are described in the methodology report. The unweighted number of cases on which the estimates have been prepared are reported in the tables found in Appendix B.
Phi is used as a measure of association for nominal data in a 2 X 2 table.
*** means p <=.001, ** means p<=.01, * means p <=.05.

7. Cramer's V is used as a measure of association for nominal data with more than two categories. "Cramer's V can only be thought of as a magnitude on a scale between zero and one; the bigger the number, the stronger the association. It cannot be interpreted, for example, as the percentage of variation in one variable explained by another, nor can it be interpreted as the proportion of predictive errors which may be reduced by prior knowledge of one of the variables" (Loether and McTavish, 1974: 197, 198).

8. Somer's d is a measure of association used for ordinal data. The measure reported is asymmetric with extended poverty specified as the dependent variable. Extended poverty is defined as living in poverty at the time of both the 10-year and 20-year data collections (ie., when the child was 10 and 20 years old).

9. Federal, Provincial and Territorial Advisory Committee on Population Health (ACPH). (1999) Toward a Healthy Future: Second Report on the Health of Canadians.

10.

Respondents who scored highly on this index of conservative attitudes indicated that they completely or mostly agreed with statements such as:

- unless mothers have to be employed, it is best for them to be at home until their children are school age
- it is best if mothers are not employed even while their children are at school
- it is best for the father to be employed full-time and the mother to be at home with the children

11.

When the regression analysis was run unweighted, time spent as a lone parent was not found to be a statistically significant predictor of mothers' self-rating of health.

12.

$t = -3.123^{**}$

13.

Please note that when this analysis was completed with the unweighted sample, the significance level was $p<.05$ only.

14.

	Beta
Early child bearing	-.09**
Extended poverty	-.07*
R	.12**